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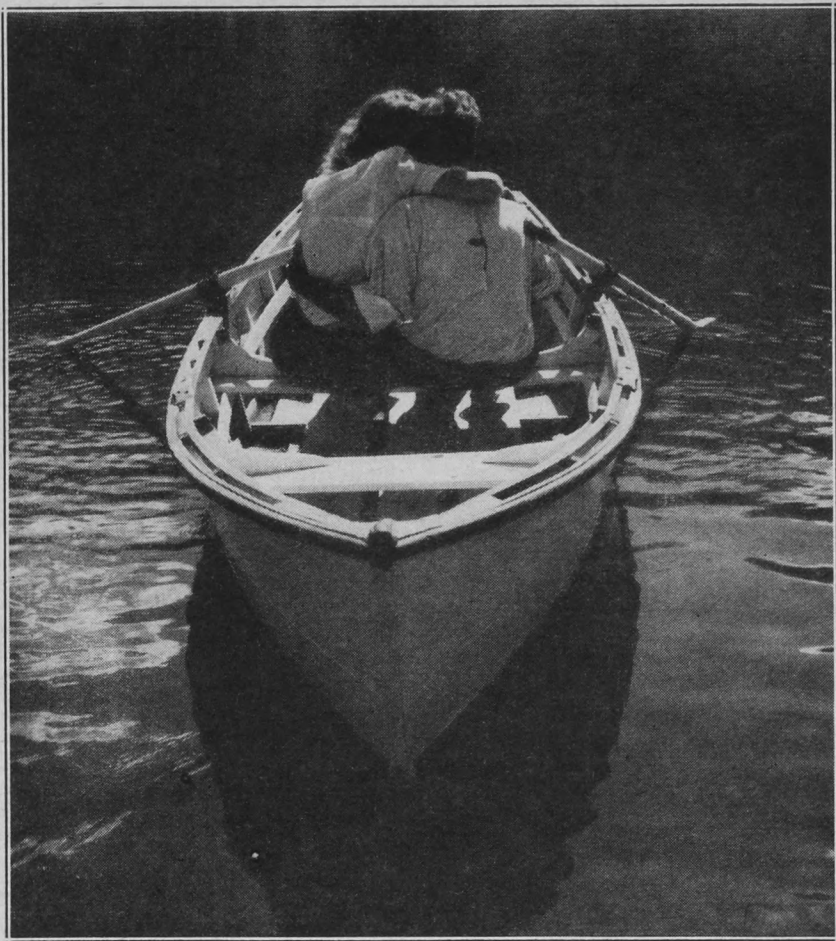
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TORONTO





[Photo by D. Clemson]

## THE *Country* GUIDE

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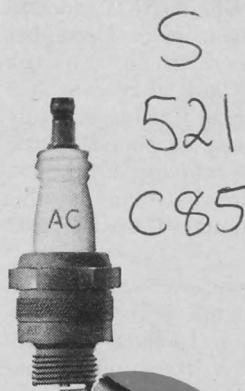
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## Under The Peace Tower

I AM just trying to make up my mind whether we have a parliament of dodos or not. Maybe I am getting old, but after seeing the 21st parliament in action now for two sessions, I am just beginning to wonder if we have not, willy-nilly, elected a dodo Commons.

The dictionary says in part that the dodo is an extinct bird, that it has functionless wings, and the word dodo is derived from "doudo," meaning foolish. Pontifically it describes the creature as "a large, extinct, didoid bird of the columbine type."

But my newspaper friends say that the ordinary man-on-the-street version of a dodo is a bird that was too silly to live. The question then, do we or do we not have a dodo parliament?

Since I am in this scientific vein, let me assure you that one can become a dodo in two ways. One becomes a dodo because one is born that way; one is the bird version of the moron. Or one becomes a dodo by atrophy. For instance, once upon a time, they say, the dodo could fly, was useful. But he could not adapt himself to modern conditions, just as in an earlier era, the dinosaurs failed to adjust themselves to the new life. The dinosaur and the dodo alike perished, for identical reasons.

I am still trying to be fair about this, and am wondering, as June merges into July, if we have dodos here on the hill. Let us suppose for the moment that we have political dodos among our M.P.'s and ask ourselves, approaching the problem with cold, scientific research, why?

The answer is simple: W. C. Clark. Now I dare say that you can live and die in Beausejour or Balcarres or Bassano, and never have heard of W. C. Clark. He is our Deputy Minister of Finance. He is our No. 1 Brain Trustee. He is the author of our New Way of Life. He is the spiritual sire of all our parliamentary dodos!

Little did I think, when 30 years ago, at Queen's University, I plodded through the gloom of a December morning, to attend an eight o'clock lecture by Prof. Clark, that some day he would be running Canada. I hardly realized, as he tried to pound a little economic theory into my head in a few, quick lessons, that some day this man would be running Canada. Yet it has happened.

Most college professors run a country into the ground, or up into the air. He has given Canada unprecedented prosperity. It is not Canadianism we are enjoying; it is Clarkism.

IT was indeed Clarkism as much as Liberalism that won the last election. Back in 1941, Cliff Clark dreamed up the Wartime Prices and Trade Board and Donald Gordon administered it. Graham Towers, down in his ivory tower at the Bank of Canada, played with his debits and credits. Thus, in this new economic Dreamocracy Clark was Prime Minister, Gordon was Minister of Justice and Chief Constable, while Towers was Governor-General, remote, elegant, inaccessible.

In peacetime, we had gradual de-



controls but, instead of people flinging off their restricting orders-in-council, they came, like the Prisoner of Chillon, to love their chains.

IN the spring of 1949, indeed in the early summer, Canada was more than four years out of the war, European section, and was entering the fifth year of peace. You would think they would be against all restrictions, all controls.

But here is what the Liberal government was able to do: it could go to the C.C.F. and say: you want socialism; well, are you not getting socialism? What is the baby bonus, what are old age pensions, what is unemployment insurance but socialism? With that, most socialists had to agree. Anyway, they knew they had no chance of voting Coldwell socialism into power.

The Liberals went to the Progressive Conservatives and said: you want Conservatism; well, are you not getting that? Is Prime Minister Louis St. Laurent not basically a conservative type, with his Quebec background? Is the Liberal party still not the party of private enterprise? Anyway, they had to agree the Conservatives had no chance of voting Drew Conservatism into power.

Thus the right wing of the C.C.F. was lopped off in the vote on June 27; similarly the left wing of Conservatism was lopped off. (With it went a few right-side feathers of the Social Credit wing.)

Now you remember those "functionless wings" of the dodo I mentioned earlier. Thus left and right by atrophy, or lack of use, did not precisely fall off, but they became all but useless.

The Liberals similarly are governing by what were once Prof. Clark's theories. But instead of these being foolish theories, impractical theories, impossible theories, they are good theories. They work. We have some socialism but not too much. We have some private enterprise, but (apparently) not too much. We control prices by subsidies, so they will not drop too much. We control them at the top by confiscatory income taxes. But Clark

seems to have devised it so that we are all making money. Canada has never been so prosperous before.

YOU wonder why parliament is so dull. The C.C.F. have not got much to talk about, because largely, the government has done what they wanted. Anyway, they seem to have lost hope. The Conservatives have not so much to talk about, because largely, the government has done what they advocated.

Between the Liberals and Conservatives, they are so close to each other that it is hard to find an honest issue between them these days. Again, Coldwell's concept of C.F.F.ism and St. Laurent's concept of Liberalism is closer than you think. It is hard for a member to find enough to fight about.

Thus we are in effect, something like a one-party parliament, where nobody has anything to fight about. Indeed, with the Liberals controlling about 190 of the 262 seats, and with the balance of that 72 split three ways, it tends to be a one-party parliament. For often as not, one or more of the opposition groups sides with the government. The Opposition thus becomes merely a token opposition.

But here is the point; nobody really has much to kick about. The Opposition have been trying from February to midsummer to find an issue. They have not got a really good one yet, because the Liberals seem to be satisfying the people. A pall of smugness has fallen over the electorate. This smugness means that the voters are not needling their M.P.'s. Then the M.P.'s, with no angry constituents on their tail, do not feel much like doing anything, or saying anything. Nor are they. That is, anything that counts.

It seems then that Prof. Clark, now Deputy Minister Clark, has given us a pretty good kind of life. Note how little new and vital stuff the government has developed in 1950. That's because everybody feels pretty good these days. For instance, this budget brought down by Hon. Douglas Abbott, Finance Minister, last spring, was the tamest in years. Why was it tame? Simply because most Canadians are happy with things the way they are.

Quietly, gradually, so noiselessly that most people did not know it, we have been taking the Clark economic theory and making it our national economy. The government can sit back and twiddle its thumbs; our deputy minister has got Canada running like a smooth machine.

There is therefore little or nothing for the members to do, little or nothing for them to say. We have just about arrived at a point where we no longer need a parliament at all. They have, like the bird I mentioned, been rendered more or less useless by the events. Perhaps the dodo was not foolish, he just looked foolish. Few look more foolish than a legislator with nothing to say. All in all, I'd say this was our dodo parliament. You better come and see it while it lasts. It may be too late if you wait too long.

The opinions expressed Under the Peace Tower are those of our correspondent and not necessarily those of The Country Guide.



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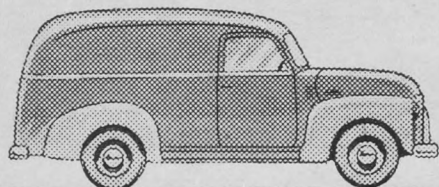
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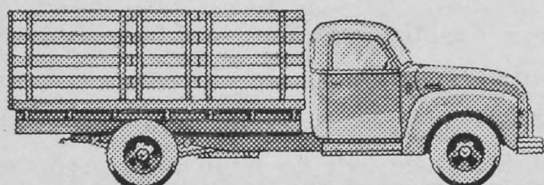




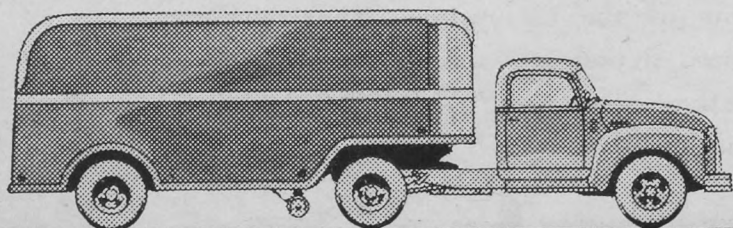
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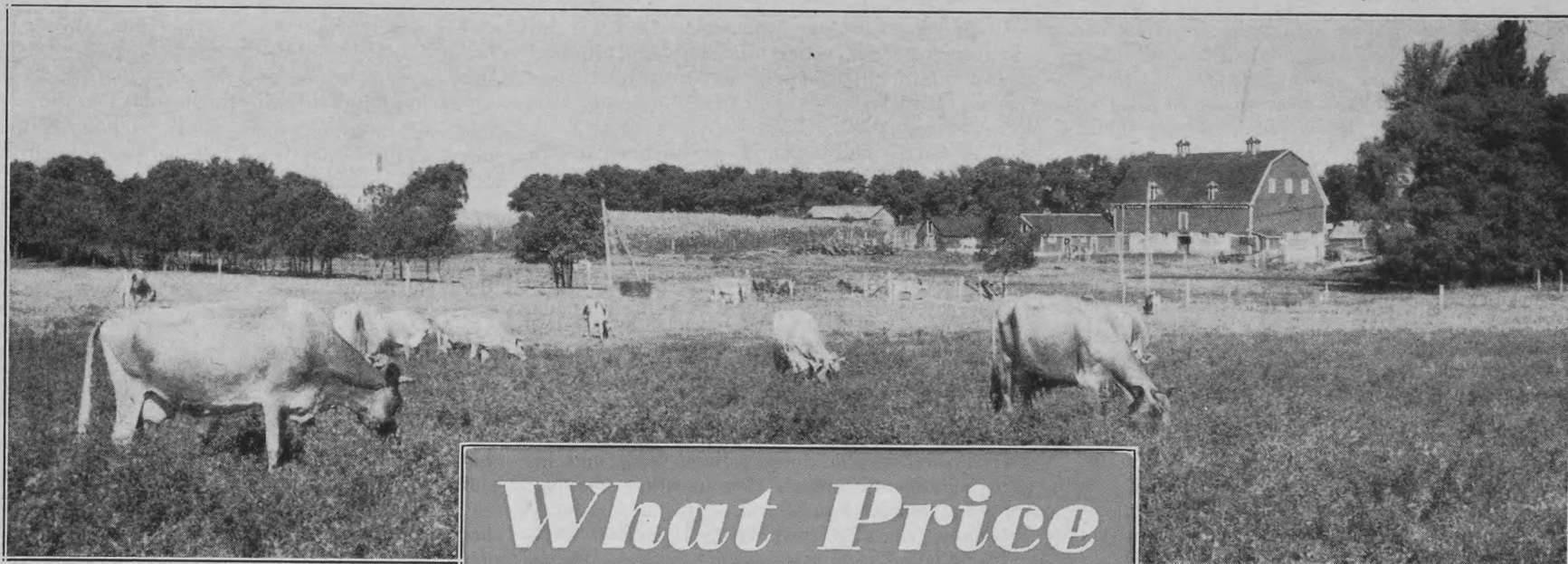
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A Jersey herd at Brandon, Man.

[Photo by J. Hartman]

## What Price Margarine?

by P. M. ABEL

**T**WO years ago half of Canada—the half which includes the daily press—was insistently demanding that the manufacture and sale of margarine be legalized. The ones who did the talking stood on the moral ground that no government has any right to deny cheap food to its people.

The other half of Canada wanted margarine kept out. These folks said that its admission would do more harm than good to the economy of the country.

On December 14, 1948, the Supreme Court cut the argument short by declaring that the federal legislation, under which margarine was then being kept out, was ultra vires. The case against margarine fell apart overnight. As long as the Supreme Court decision stood, the central government was powerless. The Federation of Agriculture filed an appeal against the decision, but the wheels of the law grind slowly. It will be September, 1950, before the Privy Council will hand its judgment down.

Meanwhile the margarine confederacy jumped into the breach. Within a month a million pounds of the stuff had been manufactured. Within four months 18 million pounds of it had passed over the counter. In the first four months of this year consumption jumped to nearly 40 million pounds. In the month of February, 1950, more margarine than butter was manufactured. The cuckoo's egg was hatched and fully fledged before the law could say whether there would be a place for it in the nest.

It is worth while trying to gauge, insofar as we may, if the worst fears of the men who live by keeping dairy cows have materialized.

To begin with, margarine has not been accorded the unrestricted scope its promoters had asked for. The

Supreme Court decision threw the control of margarine into the laps of the provinces. Two of them, whose farmers are predominantly cow owners, immediately re-established the ban within their own boundaries. Together they number about 30 per cent of the population of Canada, so that nearly one-third of Canada's domestic butter market is as completely protected as ever it was.

Newfoundland, on the other hand, is a law unto itself with respect to margarine. That province had it before it came into Confederation, and its freedom with respect to that commodity was one of the conditions under which it joined hands with the mainland provinces. The only restraint put upon the Newfoundlanders is that they may not ship it to the other provinces until such time as the manufacture, sale, and interprovincial movement of margarine is legal in all provinces, or until the federal government makes some other disposition.

**A**LL the remaining seven provinces have imposed some restriction on the manufacture and sale of margarine. None of them permit coloring beyond 1.6 degrees as shown on the Lovibond tintometer. Alberta declares that it may not be colored the natural color of butter, or any shade that might cause it to be mistaken for butter. New Brunswick prohibits coloring material to be attached to or placed within any package of margarine. Both the provinces flanking the Bay of Fundy prohibit the use of any preservative other than salt. Manitoba, British Columbia, and New

Brunswick have imposed restrictions on packaging and labelling to prevent purchasers being hornswoggled.

All of the seven provinces which sanctioned margarine in 1949 require not less than 80 per cent fat, and not more than 16 per cent water. All of them

require that eating places which serve margarine instead of butter must display placards declaring so, or must show it on the menu.

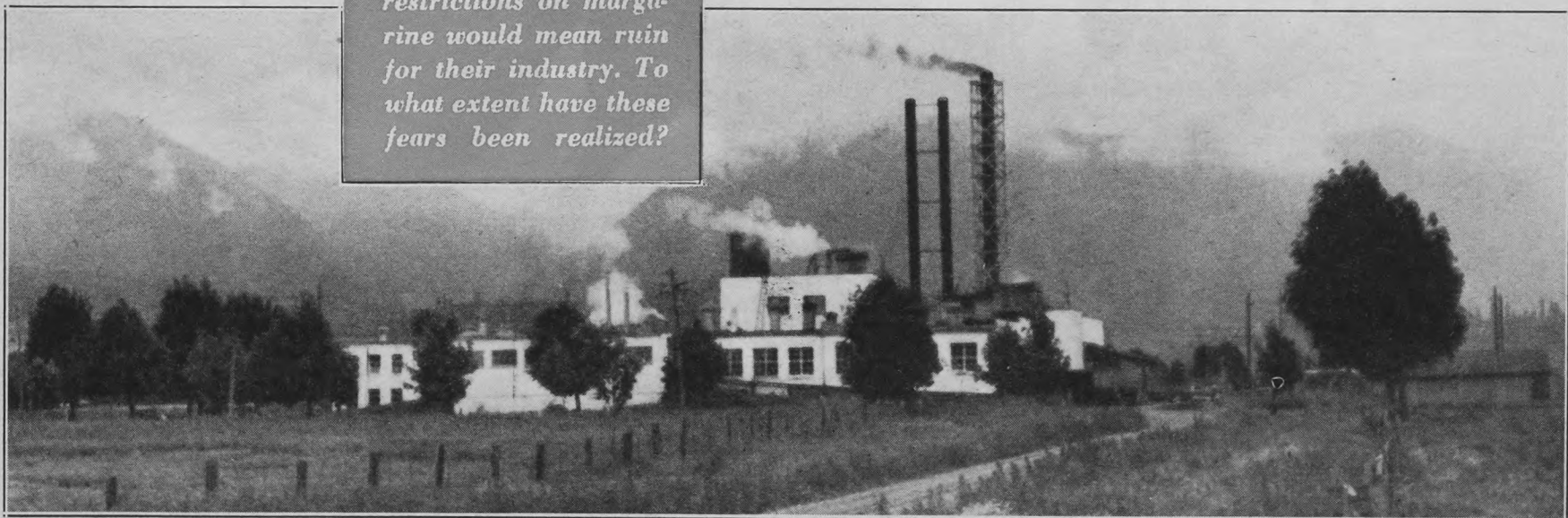
It is an open secret that the last three restrictions at least, and probably some of the others are being flagrantly violated throughout most of Canada. None of the provinces are willing to impose airtight enforcement of the law until they can see what the next move will be. And that next move depends on the law lords in England. If the Privy Council upholds the Supreme Court's decision it will be a major victory for butter substitutes. The daily press will so proclaim it. In the state of opinion for which the daily press is largely responsible, few provincial governments will court the unpopularity which strict enforcement will entail.

**M**EANWHILE the inroads of margarine continue. Consider for a moment these figures. Canadians are a butter-eating people. Doubtless our cold climate has something to do with it. In the last ten years of margarine exclusion, Canadians consumed an average of 29.96 pounds per capita per annum! We would have used more except that it couldn't be obtained in unlimited quantity during the later war years.

Our American neighbors, who have the highest standard of living in the world, ate during the same ten years an average of only 13.18 pounds of butter per capita. Of course they have always had access to margarine. In 1939 they were eating 2.3 pounds per capita, along with 17 pounds of butter. In 1949 with butter touching the dollar mark, they were

(Please turn to page 34)

*A year ago dairymen declared that a complete removal of the restrictions on margarine would mean ruin for their industry. To what extent have these fears been realized?*



The condensery of the Fraser Valley Milk Producers' Association nestled between the high mountain slopes.



**O**N the crest of a ridge ahead, Tom Lee and Quarternight had drawn to a stop. Lew plunged his team up alongside. Holding them in, he heard Tom Lee say, "I don't think you did, John."

"What is it, Tom?"

Quarternight answered, "Gunshot. You know these ears of mine. I heard it, off there." He threw his long arm in a sweep west.

From this ridge a wide valley stretched off like a grey, stormy sea, cut in half by the darker twisting line of West Branch Creek. To the north of that line was Lee's Circle Dot range; to the south, Gil St. Clair's Pitchfork. They were within half a mile of the Circle Dot home ranch now, and Lew picked out a faint yellow glow from some lighted window.

There were other lights beyond that, the unsteady red of campfires spaced a mile or more apart, one north, one south of the creek boundary line. He understood their meaning. They marked the round-up camps of the two gathered herds.

"Tom," he asked, wanting to know the stakes in this game, "what prices does your beef contract pay?"

"Thirty a head," Lee answered.

"Sixty thousand then for the drive," Lew figured. "That's too much money these days. If a man had no other reason, he'd be tempted to cut you out."

"He would," Tom Lee shifted forward in his saddle. "Well, let's—"

Three flat, distant explosions of gunfire sliced across his speech. They came with evenly spaced, deliberate shooting.

Quarternight's big body lunged and lifted his horse on down the road. Tom Lee followed, calling back, "Lew, keep up!" and Lew Rand said across to the girl, "Hold tight!"

A snap of his reins started the sorrel team in a gallop. The wagon lurched and Connie grabbed his arm. The road curved sharply and he went down a hill bank on a short-cut behind the two riders. Then they were in the ruts of the road again and the first high posts of the ranch corral blurred past.

Ahead, the creek bottom cottonwoods overflowed like a black pool that hid the cluster of Circle Dot buildings. The oblong light of a door, suddenly flung open, laid a yellow path in the darkness. Two men ran down the length of it. Tom Lee and Quarternight veered off toward them. Lew swung his team and followed.

He heard a questioning shout from Tom Lee and recognized a familiar tone that answered. Pressed against him, still clinging to his arm, Connie gasped, "It's Clay!"

**C**LAY CARR and a man Lew did not place in the dim light, were in their saddles by the time he drew the wagon team to a stop. It was too late for him to hear some explanation that Clay had given Tom Lee.

Tom was saying, "We better not lose any time."

But Clay Carr took a moment to swing his horse over close to the wagon. The trunk of his body made a square, solid shape on the animal. He never was a man to conceal his feelings. His smooth, boyish face, blue-eyed, was like a round mirror that reflected instantly every changing mood.

It showed now a quick jealous flame and his gaze pointed at Connie's close position; she had not released Lew Rand's arm.

"Connie," he said, "wait in the house."

"But Clay—"

"No time now," he told her; and then, moving away, added a toneless greeting, "How are you, Lew?"

She jumped down and started back toward her horse. Lew Rand was off on his side of the wagon. They met at the little chestnut and he said, "I'm borrowing this, Connie," and did not wait for an answer.

The stirrups were too short for him. He lagged behind the other riders, lengthening the leather straps one at a time on the run. When he caught up again he found Quarternight a little in the rear.

Across the short space between them as they raced along parallel tracks of the wagon road he asked, "What are we headed into, John?"

"Don't know. Clay said he heard the Pitchfork was giving us a stampede tonight. That was in town. He trailed the news out here, found everything quiet. But those three shots were a trouble signal. Joe Wheat and Bob Blade are guarding the herd."

They ducked beneath low branches of a cottonwood grove. The creek swung a wide loop here, and in the middle of the flat bay that it formed was a campfire's dying red eye. Not far beyond it Lew made out the bedded herd, like a dark lake with uneven shores.

"No trouble yet," he told Quarternight. "They haven't jumped."

Two riders charged suddenly up out of the creek bottom, cutting off those others ahead. Half-expecting a burst of shots, he dropped a hand to the butt of his gun. Then he recognized Joe Wheat's high shape and heard young Bob Blade's unsettled voice doing the talking for both of them, as he always did.

A dust cloud lifted and rolled back from where the group had halted. Bob Blade was saying,

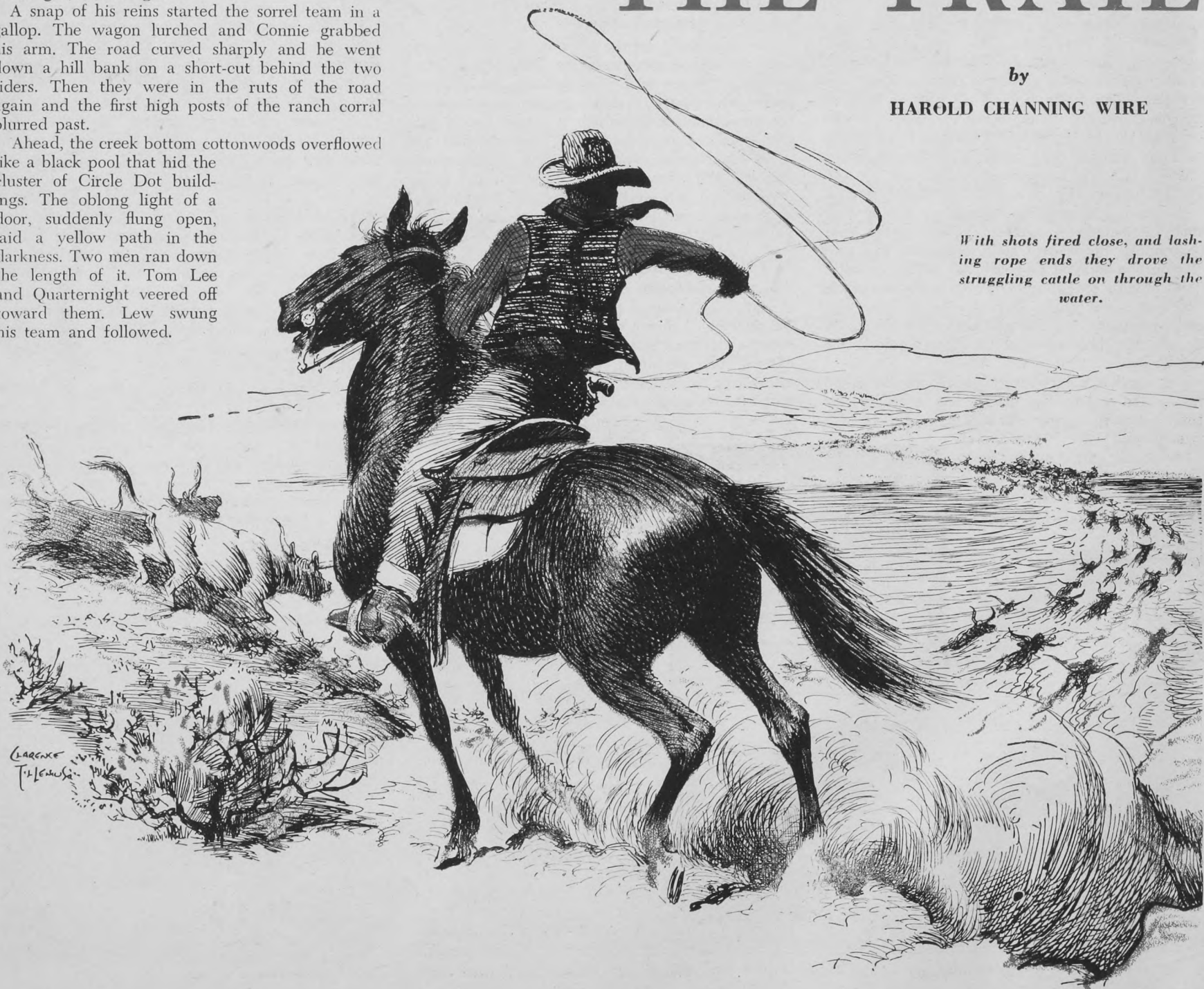
## PART II

# THE TRAIL

by

HAROLD CHANNING WIRE

*With shots fired close, and lashing rope ends they drove the struggling cattle on through the water.*





"Wheat went for a look south. Someone shot at him. But he saw the Pitchfork camp and it's full of men. Their horses are saddled. They'll be riding tonight, sure." He turned in his seat. "Holy Judas, look who's here!" White teeth flashed a grin across his brown young face. "Hello, Lew Rand!"

"How are you, Bob?" Lew crowded his horse forward. "Tom," he asked, "if the Pitchfork wants a stampede, why wait for them to start it?"

He saw the quick antagonism on Clay Carr's face. Clay's voice growled across to him bluntly: "You're speaking from the sidelines, Rand. This is Circle Dot trouble."

"Just a minute," Tom Lee put in. "Clay, I've hired Lew to go up the trail with us."

"Hired—" The word broke off and in the dead silent moment that followed, Lew Rand understood what Clay was thinking. Connie. Then the round face showed a malicious grin. "Well now that sure is too bad," Clay said. "Sorry I didn't know. I've already hired a man, Tom." He moved his head toward a rider at his side. "I've picked out Hutch Bonner."

**H**UTCH. Recalling that name, Lew Rand shifted forward to have a look. It was the same man, the one, who, making sure of the mail robbery there at the station, had said to a partner, "Good enough . . . let's go."

Tom Lee spoke quietly, but with a firmness that

every man who had ever worked for him understood: "It will have to stand as it is, Clay. I've hired Lew." He leaned to Joe Wheat. "How many men you think the Pitchfork has got in camp tonight?"

"Ten, twelve anyway." Bent with his arm crossed on the saddle horn, Wheat's form made a thin half circle. His voice was slow with a deceptive indifference. "You ain't askin' my opinion, Tom, but I fall in with what Rand said. Let's make the first move. I'm tired of bein' the rabbit . . . I'd like to be the fox awhile."

At Lew's side, Quarternight said, "It looks like the Pitchfork has let us gather just so they can do this. If they stampede us tonight, we'll lose a lot of time gathering again."

Tom Lee sat motionless, as if to collect the talk and weigh it. "We will," he agreed.

A decision seemed hanging in the balance and with a sudden impatience Lew Rand swung his pony from the group. "At least we can meet them half way. If we're close to their own herd, they'll be too busy to bother ours."

Behind him, he heard Clay Carr's stubborn anger. "I'm against any such fool move!"

Again Tom Lee spoke gently; and yet for the second time tonight he was opposing his foreman. "We'll cross the creek bottom, I think. If there's to be trouble, we'll keep it on the other side."

**T**HEY made a cautious march past the bed-ground, giving the sleeping cattle a wide berth; and then in the usual way of riders, they went on toward the dark bend of creek growth loosely paired off two by two. Gaunt Joe Wheat and young Bob Blade stuck together. Quarternight and Lew Rand went knee to knee. To the left, separated more from the others, Clay Carr talked in a low voice with the stranger, Hutch.

Only Tom Lee was alone, out in front. His grey head was dropped forward, his hands lay crossed on the saddle horn; and watching him, Lew Rand understood one thing clearly . . . trouble and gun fights and war were all in Tom Lee's past. He had lived that life. What he wanted now was home and family, a peaceful ending for his days. With a queer stir of emotion, Lew saw the long trail ahead, and after that the struggle of a new start in the north. He wondered if Tom Lee's wish could ever be filled.

They struck the creek where it made a sharp bend, and rode down into the bottom still in their loosely bunched formation. There was a cottonwood thicket on the south bank. They climbed up through that and as his head rose above the rim, he saw the Pitchfork campfire half a mile away.

The next moment, as calmly as if giving the time, Tom Lee said, "Boys, here they come."

**A**FTER that, things happened with a telescoping swiftness. One shot blazed from a tight group of horsemen that were hardly visible against the dark chaparral behind them. Three more red spurts followed. Rising in his stirrups, Lew shouted, "Spread out!" To the right and left of him, Circle Dot men split and fanned out in their forward rush. None of them had used a gun in this first moment. There came a sudden double explosion, close; he turned his head but could not locate the man who had fired.

Surprise had caught the Pitchfork riders off-guard. He saw the lead men turn back upon the others. There was a second's tangle, then confused retreat. The out-spread Circle Dot men gave little to shoot at; their guns were blazing now, each taking off in his own pursuit. He picked a man, shot twice before the high brush swallowed both horse and rider, followed on through.

But the choked growth continued again after a short open space. Up along this narrow clearing he saw Quarternight loping back toward him. The rattle of gunfire thinned, ended as abruptly as it had begun.

"They sure put their tails between their legs!" Quarternight said. "How do we stand?"

Lew hauled in. "I don't know. They may come again. We'd better get back to the creek bank."

A sudden drumming of hoofs ran toward them. Lew swung his horse, gun leveled, then named the rider sharply: "Bob!"

"Rand! All right." The boy loped in and Lew asked, "Where's Joe Wheat?"

"I'm looking for him now."

They found Wheat prowling along the far side of the brush strip. And then, drawn by the sound of their voices, two more riders took shape out of the dark—Clay Carr and Hutch.

It was Hutch who asked, "Where's Lee?"

Nobody answered. Lew felt something cold and nameless creep over his skin. In silence they approached the bend of cottonwood that had been their starting-point. He saw the grey horse first, standing with a tired patience; and then that cold thing he had felt, turned to ice in his veins. Tom Lee lay stretched in front of the waiting animal, face up.

Quarternight alone had voice to utter any sound. It came from him in a breath. "Good God!"

Tom Lee was dead. Lew realized that even before he knelt beside him. But then, even with his sense of shock, he was puzzled. The quiet head showed no wound; nor was there any sign of gunshot down the front of the body. He forced himself to explore underneath with one hand, up along the side to a shoulder blade.

Slowly, he stood up. His words dropped hard and heavy into the silence that had held the Circle Dot men. "Queer," he said. "Mighty queer. Two shots in the back."

He looked into Clay Carr's round face and it changed under his gaze, suddenly distorted with a bitter and accusing violence.

"What does it matter how he died?" Words came forced from Clay Carr's tightening throat. "He's dead . . . killed in this fight. Yes! You, Rand! You had your way!"

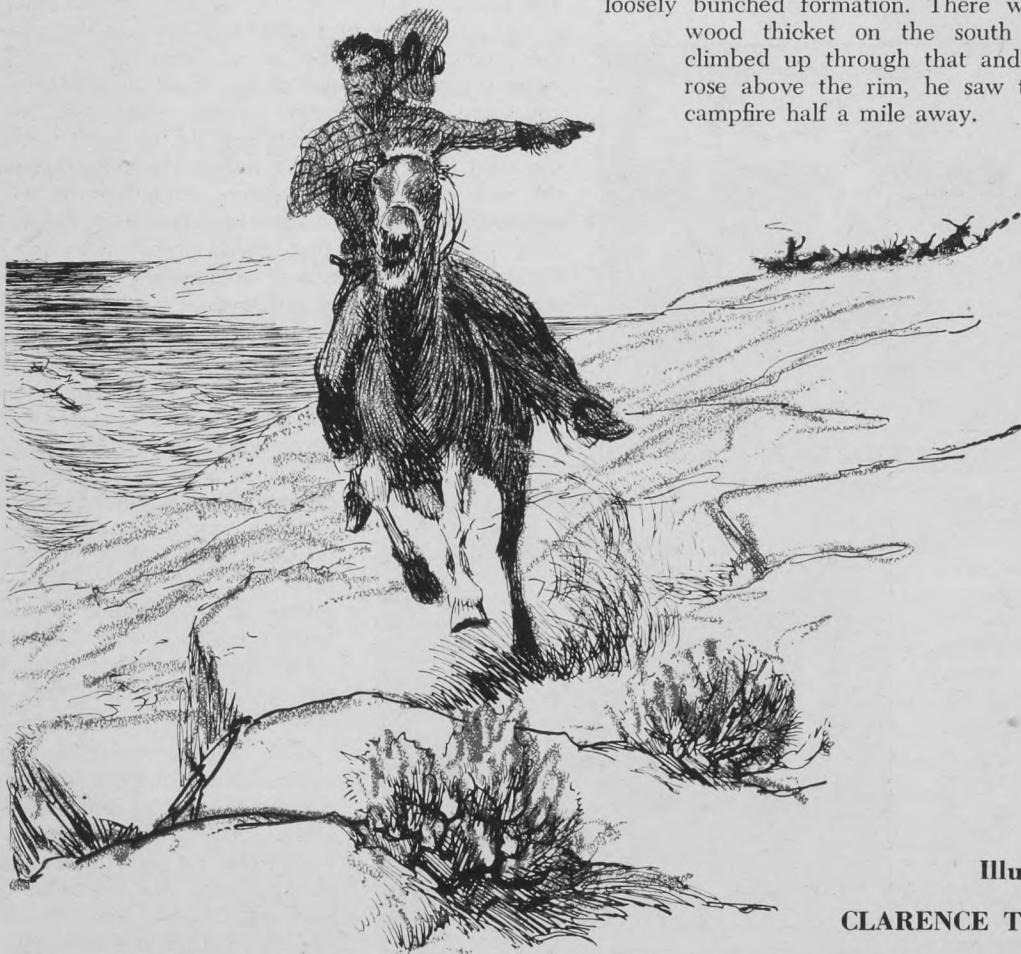
**T**OM LEE'S death altered three things in the Circle Dot's plans. It would delay the start, Lew realized at once; and as he slowly circled the herd, riding night guard, he could only guess at the other changes. He did not go into the house. Clay Carr had insisted on going to Connie, alone. He did not come back.

Throughout that night there was no further trouble from the Pitchfork riders. It was puzzling, until, even before dawn, the reason became clear. Starlight was only beginning to fade into the grey heavens, when he heard the blating sound of disturbed cattle. It moved across the dark flat, south and west, swung north, grew fainter. Then in the sudden flood of daylight across the prairie, he saw a rising pillar of dust in the northern sky. The Pitchfork herd was already on the trail.

(Please turn to page 47)

# AHEAD

*Tom Lee's huge Circle Dot herd long overland drive to Dakota begins with two new hands in the outfit. Lew senses trouble and Connie is faced with a change of plans*



Illustrated by  
CLARENCE TILLENIUS



# 4-H For Learning

*North Dakota is a good example of how 4-H club work is reaching American farm youth and is giving them a fuller knowledge of agriculture and widening their ability to live happily with other people*

by RALPH HEDLIN

THE energy with which young people will devote their attentions to something that really interests or intrigues them is a constant source of surprise. It is well enough recognized that society has frequently channelled this drive in order to achieve a specific purpose. Before Hitler launched his armies against the defenses of the world he had spent many years inculcating the young people of the land with the importance of the objects that he wished to achieve and the drama and grandeur of the methods he adopted.

It would be a mistake to suppose that the fancy of young people—or those not so young—is caught by a statement of fact and of the desirability of a certain course of action. Hitler ranted and raved, but he appears to have carried his people with him. I would take the liberty of doubting whether Churchill consulted his Chief of Staff before indicating that the opponents of the German armies would “fight them on the beaches.” In a military sense it might be better to fight them on the sea or back in the hills. Mr. Churchill doubtless did

“Four-H club work for rural boys and girls is a part of the national agricultural extension system which reaches every state in the United States, Puerto Rico, and the Territories of Alaska and Hawaii,” says Gertrude L. Warren, United States Department of Agriculture. “It is being developed also in many foreign countries. This system was organized by the United States Department of Agriculture in co-operation with the State colleges of agriculture and the county extension organizations under the provisions of the Smith-Lever Act of 1914 and other acts of Congress and of State legislatures authorizing the establishment of agricultural extension work and making appropriations for it. Four-H clubs usually are organized and conducted under immediate supervision of county extension agents co-operatively employed by the Department of Agriculture, the State Colleges of Agriculture, and county governments. Clergymen, teachers, and other professional men and women, together with outstanding farmers and homemakers, play an important part as local leaders in the development of this work which reaches almost two million young people each year.”

THE signing on May 8, 1914, by President Wilson of the Smith-Lever Act pro-



When it is possible, club meetings and talks are held out-of-doors.

already growing up in various parts of the United States. As early as 1906 a school superintendent, O. H. Benson of Wright County, Iowa, saw the need of co-ordinating work being done by the different clubs. He suggested the adoption of an emblem and suggested the emblem that has since come to be associated with 4-H work wherever it is carried on—the green, four-leafed clover with a white H on each leaf.

Club work made its appearance in North Dakota a year before Benson advanced his idea of a 4-H emblem. A corn growing contest was held in Traill county in 1905, and that year a county corn show was held at Hillsboro. The idea spread rapidly from Traill to other counties and to the original corn project were added such projects as garden, potatoes, livestock and home economics. This early work was handled through the schools, and in some counties the school remained the chief contact until 1920 or 1921.

THERE were a number of features in the early club movement in North Dakota that experience proved left something to be desired, and these features have since been largely eliminated. One thing that has been attacked is the idea of contests. The idea was to have the young people compete for top positions, and the ones who were most successful would receive prizes, and would go up to the Achievement Institute held once a year at the North Dakota Agricultural College in Fargo. The purpose of the Institute has not changed since it was organized in 1910. It is designed to give the young people who attend from all over the state a good time, and at the same time provide education and inspiration so that those attending go back to the local club and do an even better job than they were doing before. To some extent the real value of the Institute tended to be lost because exhibits were stressed rather than exhibitors. It was decided that it was important to bring the boy or girl who was outstanding up to the Achievement Institute rather than the boy or girl who had an outstanding calf or plot of grain.

“In extension and club work we are working with people,” says H. E. Rilling, State 4-H Club Leader. “If we are not there is no excuse for our continued existence. A show or a fair is a show window of progress and accomplishment wherein people bring in their products, but what purpose does a good animal serve unless it contributes to the welfare of people? We cannot justify too much stressing of the top exhibit. We should stress the ‘top’ boy or girl.”

This philosophy runs up against the problem of the placing of exhibits in the show classes. The leaders in extension work are not too happy about seeing the calves at a show placed first, second, third, and so on. In many shows the

(Please turn to page 27)



In the 4-H Club “catch it and keep it” contest the boys line up and on a given signal—

not give it a thought. He was making a dramatic statement, and throughout the war he frequently illustrated his ability to catch the emotional fancy of his people and inspired them to efforts that even they themselves would have considered impossible.

The 4-H clubs in the United States appear to have recognized that some dramatizing of their activities is not to be despised. The attempt is made to make everyone know what the local clubs are doing and to make the clubs important in the community. The young people are led to feel that they belong to something that is well worth while, and they are proud to be members.

Junior farm clubs in Canada are what 4-H clubs are in the United States. The 4-H clubs have a motto, an emblem, and the members all take the same pledge. The motto is “To Make the Best Better.” The emblem is a green, four-leaf clover with a white H on each leaf. Each H stands for a principle to which the member pledges himself: “My Head to clearer thinking, my Heart to greater loyalty, my Hands to larger service, and my Health to better living, for my Club, my Community, and my Country.”

vided funds for the national promotion of extension work. This was the beginning of Federal supervision, but it was by no means the beginning of club work. Young people’s clubs having the same basic purpose as the present-day 4-H clubs were



all are after the calf. The center picture shows the calf narrowly escaping, but—



in the bottom picture the lad is up one calf and out one pair of pants.



# 100 Senior Students Can't Be Wrong

by A. G. McCALLA



The grower of this Alberta alfalfa can plead not guilty to the charges in this article. [Guide Photo.]

ONE hundred senior students can't be wrong. Or can they? In April, 1950, on a final examination paper at the University of Alberta, the following statement was made:

"Advances in methods of seed treatment, weed control and tillage; and the use of fertilizers and improved varieties of grains have all contributed to the potential yield increases that should be obtained from grain crops in western Canada." One hundred students in agriculture were then asked: "(a) Do you believe that such increases have been obtained by farmers? (b) On what evidence do you base your answer? (c) If your answer to (a) is 'Yes', do you believe that production can be maintained or increased with present farming practices? If your answer is 'No', how do you suggest that the potential yield increases can be more nearly realized?"

Over 75 per cent of the students gave an unconditional "No" to (a). Of the others, only four or five thought most farmers were getting such increases, and no student thought all farmers were.

Many of these students cited as evidence for their answer, part of an article in the January, 1950, *Agricultural Institute Review*, in which Gordon O'Brien said, "It is a sad thing to relate that, despite the better varieties of grain that have been introduced, the larger amounts of fertilizers which have been used, and improved methods of producing crops in many ways, average yield of hay and oats have remained about stationary."

Most of these students did not wholly agree, however, with Mr. O'Brien's further statement that: "The answer, of course, is that the productivity of the soil has declined. Our soil is not as good as it used to be." Most of them gave as the most important reason why farmers aren't getting in-

***It is commonly assumed that prairie farmers are making good use of the secrets unearthed by scientific workers in laboratories and on experimental farms. Dr. McCalla analyzes this belief with disquieting results***

creased yields the fact that most farmers just aren't using the improved materials and methods available to them. They rated Mr. O'Brien's, "The answer, of course," as the second major reason, but certainly not first.

So again I ask, "Could they be wrong?"

I think that no one puts a higher rating on the need for conservation than I do. Nevertheless, on the basis of the available evidence, I believe these students were right. This evidence shows that many farmers are not using the best varieties, or good seed, or good seed treatment, or good cultural methods, or enough fertilizer. When it is all added together, the evidence agrees with the opinions of these students.

Here are samples of this evidence.

Let's take varieties first. Each of the three prairie provinces has a Zonation Committee that makes annual recommendations regarding the best cereal varieties to be grown in that province. The recommendations are based on the results of carefully conducted experiments carried out for several years. When new varieties are introduced, these are thoroughly tested before any recommendation is made. Just because a variety is new, it is not necessarily better than an old one. When tests show that it is better, it is recommended, and the old one is taken off the recommended list.

Do farmers follow these recommendations?

Many do. Probably the variety situation is better than any other phase of crop production. Not all farmers do, however. There are several estimates of variety distribution made each year. Results differ slightly, but in general they all show the same thing. They show that over 90 per cent of the farmers in western Canada grow recommended wheat varieties. Farmers in Manitoba and Alberta nearly all grow recommended varieties of barley, but only about 50 per cent of the farmers in Saskatchewan do. Most Alberta farmers grow recommended varieties of oats, about 80 per cent of Manitoba farmers do, while only 65 per cent of Saskatchewan farmers do. Thus, even with varieties, many farmers do not use the best.

SOME farmers are very reluctant to change to a new variety. Others are much too eager to change, and won't wait until such a variety has been reasonably tested. If farmers would follow recommendations, both these faults would be eliminated and production of grain would increase.

Second, we'll look at the seed used. Here I shall use only Alberta figures. Those for Manitoba and Saskatchewan may be better—I hope they aren't worse! In 1949 a seed drill survey was carried out in 23 municipalities in Alberta. Nearly 2,000 seed samples were obtained. Of these, 51 per cent were graded as rejected for seed. Over half the farmers were planting seed that simply should not have been used. Over half of these rejected samples were rejected because of wild oats. Only 21 per cent of the seed samples collected graded No. 1 Seed. So, Alberta farmers are not using clean seed. Barley was the worst, with over 60 per cent rejected.

Good seed must also have other qualities. Seed that does not germinate well will not give a good crop. All samples from the seed drill survey in four municipalities, known to have suffered frost damage, were tested for germination. One-sixth were rejected because of low germination. One sample that germinated only six per cent was being planted by a farmer. Nothing else that he could do would give him a good crop on that field.

For years farmers have been advised to treat their seed. Is this really necessary? Evidence shows that it is. The Line Elevators Farm Service tests seed for the presence of smut. They have recently published a summary of the results obtained with barley and oats during the past three years. These results show that over 80 per cent of the oat samples tested carried smut. Barley was even worse, as over 90 per cent of all samples carried smut,



[Photo: Nat. Film Board]  
Dr. T. Johnson of the Rust Research Laboratory at Winnipeg inoculates growing wheat with rust spores.

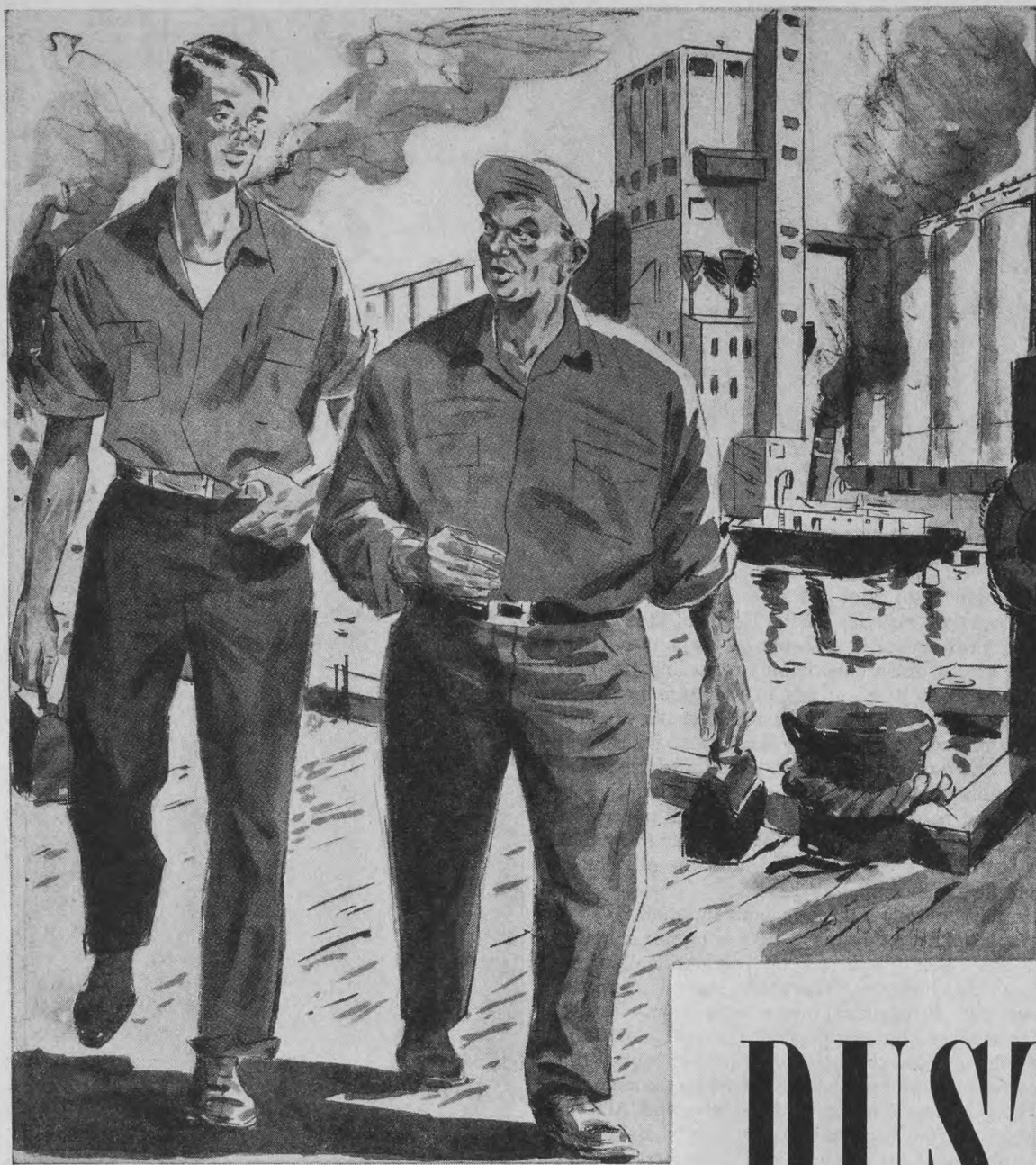
while 31 per cent carried smut balls. It is quite certain that this seed needed to be treated. In fact the Line Elevators report says that these results are almost unbelievable—they are so bad.

Do farmers treat their seed? We can get one answer from the Alberta seed drill survey. Records were obtained for 926 samples. Of these 926 samples, 413 were treated with formalin, 412 with mercuric dusts, while 101 were not treated at all. This would indicate that more than eight out of nine farmers were treating seed, and while this isn't good enough, it is not too bad. But—and here is the catch—formalin has not been recommended for many years past, yet half the farmers who treated seed used this treatment. It has been shown many times that formalin, as used by many farmers, injures seed, especially wheat. The treatment may control the smut, but may cause greater losses by injury than would have been caused by the smut. Injury cannot be overcome by a little higher rate of seeding since the growth of the crop as a whole may be retarded. Therefore, 413 farmers had the right idea, but used the wrong treatment. Add the 101 farmers who did not treat at all and you have five out of nine farmers who did not use recommended methods.

Thus, although these Alberta farmers sowed seed of recommended varieties, more than 50 per cent was rejected because it was dirty; 17 per cent in four municipalities was rejected because of poor germination; and less than half the farmers treated seed properly, if at all.

No, I hope the Saskatchewan and Manitoba figures aren't worse. (Please turn to page 28)





"Some day mebbe you make leetle bit alleyvator man," growled Joe.

**Joe Bolesy maybe knew a lot about elevators but his judgments on men were not infallible**

IN a hot July the miserable town of South Ewing was boiling with dust and smoke, boats and cars. Its tumbled landscape, bruised with steel mills and coal docks, scarred with long, puckered slag dumps, and leprous with giant grain elevators along the black river, was full of busy noise and motion, full of strong, blue-shirted men, and full of hard, obvious accomplishments.

Flat-waisted Great Lakes freight boats fairly covered the dust-coated surface of the water, waiting to slide open hatches under thick, pouring spouts of grain. Long snakes of boxcars curled off the main lines into elevator yards, hastening to free the sliding, rippling tons of grain within them.

Dust clouds billowed out of track doors and dust plumes floated free from docks. Yellow-grey wheat dust, a fine and gentle dust, a dust that is delightful to behold, but which, as any fool of a dust breather in the elevators of South Ewing can tell you, is full of rich, satanic acid.

This particular dust billowed in a freedom that was its own in this particular July; it was in a year when the wide, horizonless fields of Kansas swelled up to spill hard wheat across the world. It was a year when the wheat river was in its stride and flowed gigantically up across the rolling prairies and into the crusty industrial town of South Ewing, and thence up the Lakes in fleets of sluggish freighters, and out across the sea.

Also, it was a year when Danny Morran, 19, big-eared, freckled, with jointy limbs that undoubtedly were held to his big, bony torso by no more than careless cotter pins, was trying to be a grain elevator man.

It was not a good year to learn to be an elevator man, this year of big crops and a howl for bread

that sounded across the ocean in a polyglot European chant. And of all the dusty months of this year it was a very poor July in which to learn to be an elevator man—or was it? Perhaps, after all, there was some merit to this month, because, instead of the usual eight or ten-hour initiation each day, Danny Morran was putting in a good, solid 24 hours.

Then, too, in an ordinary year Danny Morran who needed a man's job and a man's pay, might not have had the chance to break into the select company of good Polack shovel men, sweepers, oilers, car coopers, weighmen and spoutmen. For the common requisites were a thick, hairy neck and a bulge of back muscles.

But, with all his intensive education, Danny Morran was being pointedly informed that he would never make an elevator man. Joe Bolesy told him so each day as often as he thought of it, which was frequent, indeed, in the hard schooling that Joe Bolesy gave. "Kolleral!" Joe swore, and sometimes, in a milder humor, "You clumsy poppy! If it was not so busy time joost now wit dis alleyvator, I vould myself take you oppstairs in de coopolo and drop you down a empty bin, you bet it. Nefer will you be alleyvator man like me."

LUCKILY, Superintendent Mike Willits, boss of the North Central A house, did not express the same opinion of the earnest, gangling youth as did shoveller Joe Bolesy. Mike Willits needed men, and more men—because even South Ewing dust breathers of the first water do not find it easy to work the clock around on a turbulent, noisy working floor where pillars and spouts and elevator legs are almost hidden in a constant haze of dust.

He had Danny, and he was going to keep him.

by KIMBALL HERRICK

Illustrated by J. H. Petrie

It looked almost as if he were going to keep him unceasingly imbedded in the dusty welter of the North Central's floor, for Danny had been home only once in 60 hours.

The six hours of that one relief had been a paradise of delicious, sodden sleep. Barely had he time to whisper, "Mom, we're makin' plenty of double-time money. I'm getting paid all the time I'm home, even, Mom," before he was fast asleep. And Mother Morran, blessing seven saints that her beloved departed husband, Pat, had left such a son to look after herself and two littler Morrans, washed Danny's face as he slept, tenderly soaking the black crust from his wide, young mouth and the black corners from his reddened eyes, and saw him already a man.

Now another span of hours had gone by, and the North Central, vibrating, rumbling, groaning, had swallowed another lusty batch of railroad rolling stock, drawing in the red boxes in two parallel lines through the high front door, disemboweling them with the rhythmic sweep of the ceaseless shovels, and spewing them out onto the dead tracks behind, where the yard engine might swing around and catch them to be hauled away.

And now also another respite was due Danny Morran. Mike Willits, haggard and red-eyed from his own unceasing combat with a boiling house, a tough railroad crew, ship captains, a vigilant state grain inspector, and a critical corps of insurance people, had patted him on the back with a heavy hand and said, "You're a good boy, Danny Morran.

In another few days the edge will be off this run and maybe we can be human beings again."

Joe Bolesy saw the friendly gesture and grinned behind Danny's back. Joe Bolesy was also off for a few hours' sleep,



and like a pursuing devil he lumbered down the cinder path alongside the younger man, his short, powerful body throwing Danny's rawboned length into beanpole relief.

"Some day mebbe, you work hard, you make leetle bit alleyvator man," Joe growled out at his constant buffer, "but yet now you was good for knotting."

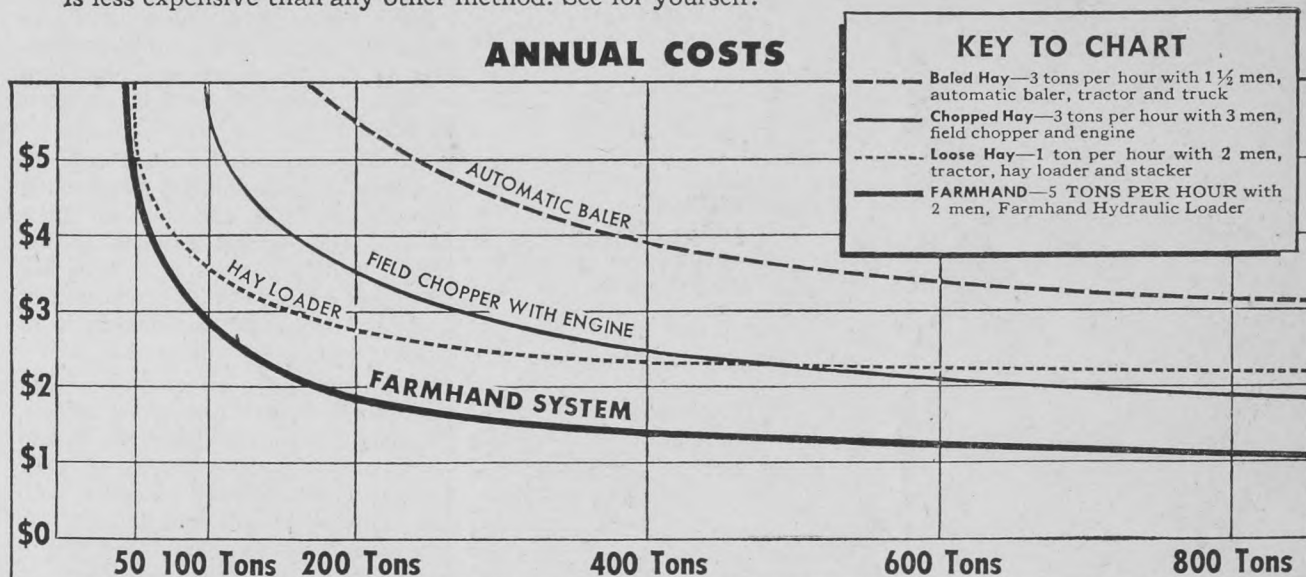
Danny turned upon his tormentor. There was fury in his eyes, and yet his freckled face disclosed not so much anger at this squat man as anxiety and fear, because Joe gave voice to what he wondered himself. Yet Mike Willits, that grand boss, had patted him on the back and said that he was a good man. No, he hadn't. Danny stopped short. Mike had said, "Good boy, Danny." That might mean anything, might be merely pity. In anguish Danny looked back at the giant black-walled house behind him.

That was how he came to see it, that monstrous thing that shook South Ewing. Beyond the dusty bulk of the North Central, across the river and perhaps a quarter-mile down, was the Arlington house, another grain (Please turn to page 36)



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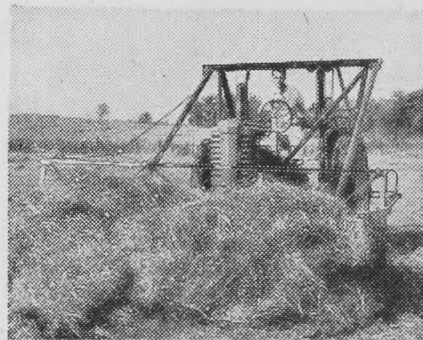
**SPECIAL STUDY** of hay harvest costs by university extension specialist in farm management reveals relative costs of haying systems—adds to evidence that **FARMHAND** Haying System is less expensive than any other method. See for yourself!



## 1. HAY HARVEST COSTS FARMHAND SYSTEM

Windrow to field stack

ANNUAL:	Per ton
50 tons.....	\$2.41
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200 tons.....	\$1.02
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600 tons.....	\$0.72
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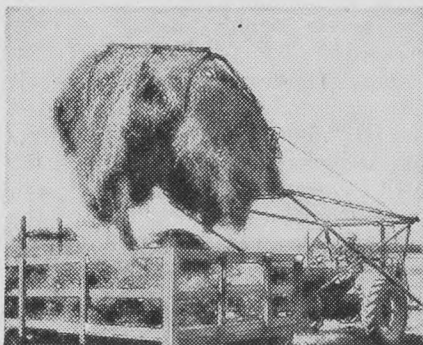


**STACK HAY** up to 27 feet with your Heavy-Duty **FARMHAND** Loader and Hydraulic Push-Off on Hay Basket. Lifts half-ton of hay in 30 seconds... builds solid stacks for minimum weathering loss.

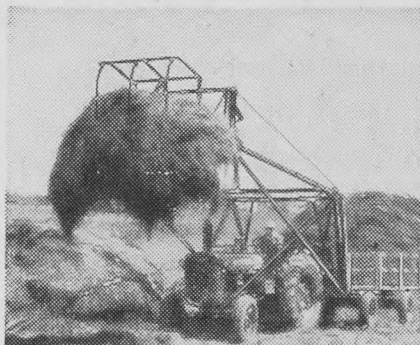
## 2. HAY HARVEST COSTS FARMHAND SYSTEM

Field stack to wagon to yard stack or to animals (up to 1 mile haul)

ANNUAL:	Per ton
50 tons.....	\$2.54
100 tons.....	\$1.43
200 tons.....	\$0.86
400 tons.....	\$0.59
600 tons.....	\$0.50
800 tons.....	\$0.45



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**RE-STACK OR FEED** as you wish. It's a cinch to unload wagons with the Grapple Fork! Simple, positive controls, plus "Wrist-Action" flexibility do the job with almost human precision.

## 3. TOTAL COSTS FARMHAND SYSTEM

Windrow to field stack—field stack to wagon to yard stack or to animals (up to 1 mile haul)

ANNUAL:	Per ton
50 tons.....	\$4.95
100 tons.....	\$2.92
200 tons.....	\$1.88
400 tons.....	\$1.39
600 tons.....	\$1.22
800 tons.....	\$1.12

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## B.C. Estimates Her Losses

*A cold winter and a late spring have combined to bring trouble to the fruit growers of British Columbia*

by CHAS. L. SHAW

**B**RITISH COLUMBIA may escape serious flood damage this year, even though as this is written there is still a danger, but already the province is counting the toll from the last winter's huge snowfall and the lingering cold.

The west coast province is enjoying a fine spring, with balmy days and cool evenings, but the orchard country of the Okanagan and elsewhere present bitter evidence of B.C.'s worst winter.

Fruit growers as far north as Kamloops and south to the Washington border are still checking up their losses. The general estimate is that there has been a loss of at least five per cent in the over-all production of soft fruits, with many hundreds of trees permanently damaged.

The sharp cut in production will, of course, have far-reaching effects. Canneries will have a short season and will probably devote most of their run to vegetables and tomatoes, with the bulk of the soft fruit going to the fresh market and probably commanding a higher price than usual.

**T**HE spring was slow in reaching the Fraser Valley with the result that the berry crop was delayed at least two weeks. Mission City held its traditional berry festival on schedule, but there was not a berry in sight.

Those cold nights of last winter when the temperature dropped as low as 27 below zero—an unheard of thing for the fruit country of B.C.—are only a memory now, but the sight of ruined trees is a realistic reminder of the havoc they caused.

British Columbia fruit growers have asked the Ottawa government for further financial assistance on the ground that "a state of emergency" exists in the industry as a result of the severe winter damage to the orchards.

The executive of the B.C. Fruit Growers' Association was instructed at the last annual meeting of the directors to explore all avenues of approach with a view to securing immediate aid, first for present needs and then for the long-term requirements due to loss of trees.

A survey of the orchard country disclosed that apricot trees were killed in several districts and the peach and cherry trees very hard hit, with pear trees over a wide area seriously damaged. Prune trees in the northern section of the Okanagan Valley were injured, and some varieties of apples, notably Newton and Rome Beauty, were affected.

Happily, most of the apple varieties do not appear to have suffered at all and, judging by the blossoms of late May and early June, heavy yields are probable.

**O**THER west coast industries face an extremely productive period, too, providing that labor disagreements do not interfere. Fishermen are involved in their seasonal dispute with cannerymen over the price to be paid for their catch, but there is every prospect that a settlement will be reached before the Sockeye hordes begin to

move through the Straits of Juan de Fuca from the open Pacific, bound for the spawning grounds of the Fraser River. This happens to be one of the big years of the four-year cycle; in other words, there is almost sure to be a heavy run of the Sockeye type of salmon—and Sockeye are the "cream of the crop," the big-money species for canning.

**T**HE major threat to industrial harmony and production lay in the inability of the loggers to reach an agreement with their employers. The loggers asked for a dollar a day more in their wages and a closed shop. They claimed that there is a high-priced market for lumber in Canada as well as in the United States and that the sawmills can well afford to pay for higher-priced logs. The operators, on the other hand, pointed to the fact that the strength of the market is a day-to-day affair and that they cannot count on a continuing boom, and they argue that many loggers object to union membership and should not be forced to join. A deadlock resulted. If the strike takes place and extends through the summer, the effect on the province's whole economy could be quite serious. This possibility has been sufficient to make the threat of paralysis in B.C.'s No. 1 industry a matter for everyone's concern.

This is a time of year when political affairs are usually submerged. There are too many other things to demand attention. However, there have been some rather unusual developments in this sphere in recent weeks.

For reasons of their own the Conservatives are in the throes of a sort of underground rebellion. The revolt is confined to their own ranks and it is based on the contention of a few young Tories that the party should have a new provincial leader.

**D**ISSATISFACTION with Hon. Herbert Anscomb, minister of finance in the coalition government, is widespread among the ambitious rising generation of Conservative politicians, although a sober analysis of the situation hardly justifies the discontent. Mr. Anscomb, as an administrator, ranks head and shoulders above other members of his party and he has admittedly been one of the most powerful figures in the two-party alliance that has prevailed since the early war years.

It is because of Mr. Anscomb's loyal service to the coalition that he has suddenly become unpopular with the Tory rebels who would like to see some aggressive young parliamentarian such as Davie Fulton of Kamloops at the head of the party. Davie Fulton, still in his early '30's, a Rhodes scholar, clever debater, war veteran and eager, has the dash and flair for the job perhaps, but he is so different from Herbert Anscomb that comparison is difficult. Anscomb, still in his prime, is a hard-headed businessman and industrialist by training and aptitude, and one of the foremost champions of the free enterprise system in the government. He de-



plores the trend of government expenditure and he took no pride in being the finance minister to present the first budget in the province's history calling for the spending of more than \$100,000,000.

Mr. Anscomb has been a good friend of the coalition and its powerful supporter, but he has been faithful to the Conservatives too, and on more than one occasion he has crossed swords in friendly fashion with his Liberal colleagues over incidents that might tend to emphasize the numerical inferiority of the Conservatives in the coalition. He has got along very well with Premier Byron I. Johnson and Attorney-General Gordon Wismer, the other two major powers in the government and both Liberals, but he has also shown a devotion to the party of his original affiliation.

SO it is rather difficult to trace the real significance of the present revolt against Anscomb which may break into the open when the party holds its convention in October. By that time, feelings may have cooled off somewhat, but the present temper of the young Conservatives appears to be that their party is doomed to permanent subordination in British Columbia so long as coalition continues and with Anscomb in it.

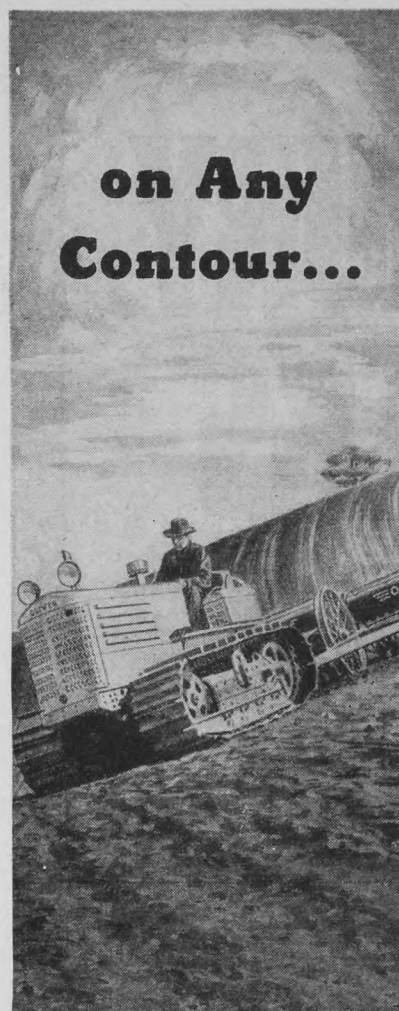
During the next few months British Columbians are likely to hear a lot more about the single transferable vote system which, if adopted, would give the two old-line parties an opportunity of entering separate candidates in the next election without fear of having the vote split between them and thus provide easy success for the C.C.F.'s third candidate. If the legislature puts this system into force, it will be a clear indication that the Conservatives and Liberals will contest the next election as separate parties, and that coalition is doomed.

SOIL restoration is being practised by farmers in the Ashcroft country, where successive years of potato, tomato and bean crops have left their mark. Progressive-minded operators who know the importance of rotation and judicious use of fertilizer have taken considerable acreage in that section recently, and they are achieving modest miracles.

Encouragement is being given by cannery men who have seen the productivity of the soil gradually decline due to neglect. Fertilizer and diversification of crops are effecting a gradual recovery, and Ashcroft people believe that if the area had cheap power the improvement would be even more pronounced.

This applies to other areas where soils have been permitted to run down through misuse, and it also applies to country that so far has been little developed for various reasons but which possesses the potential of rich productivity if given a chance.

The provincial government intends to make effective use of its new instrument, the power commission, to provide cheap hydro-electric energy for the farmers. It realizes that the only way to stimulate the flow of population to the rural areas is to make life attractive there, and that efficient power at low rates represents the surest inducement. British Columbians may expect to see some pretty startling developments both in electrification and irrigation during the coming decade.



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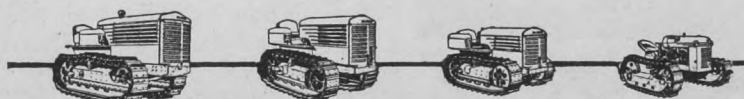
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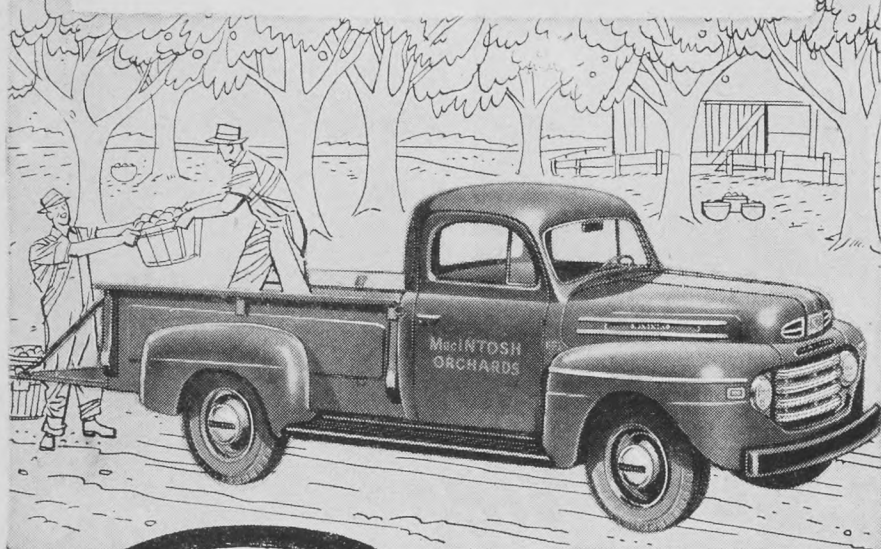
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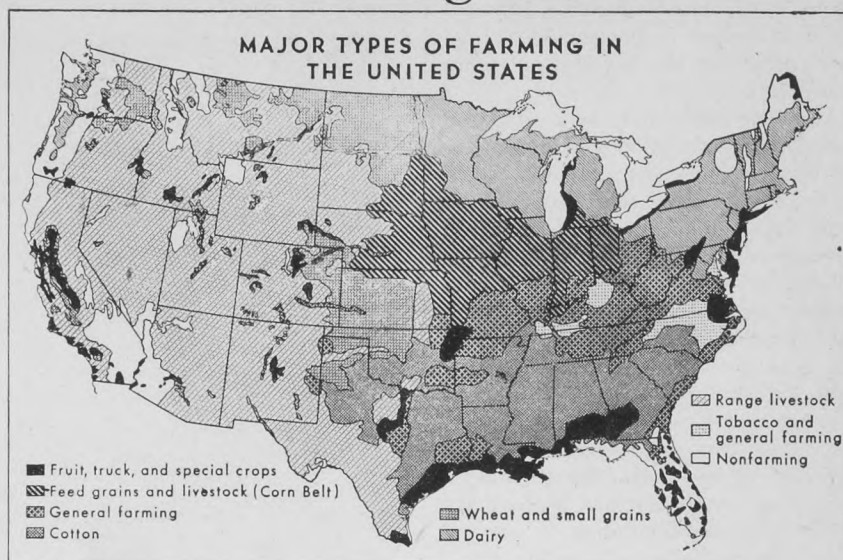
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## News of Agriculture



[U.S. Bureau of Agricultural Economics]

This map indicates the regional nature of most types of farming in the U.S.A.

### I.F.A.P. Complain

THE annual meeting of the International Federation of Agricultural Producers which met early in June in Stockholm, Sweden, re-elected Dr. H. H. Hannam, President, Canadian Federation of Agriculture, to the presidency of I.F.A.P. for a second year. He will be associated with Pierre Martin of the French National Farm Organization, elected vice-president, and Alan Kline, President of the American Farm Bureau Federation, as second vice-president, and G. Rossouw representing the South African Farm Organization, as third vice-president.

The I.F.A.P. Conference complained that member nations of F.A.O. were not convincing in presenting reasons for turning down the International Commodity Clearing House proposal advanced at the Guelph Conference of I.F.A.P. last year. They decided to press for policy which would result in action by governments of U.N. member nations, particularly with respect to the handling of food surpluses, and the establishment of other commodity agreements than wheat, especially of dairy products, wool, sugar and cotton. Freer trade was unanimously agreed on as a means of developing agricultural markets.

The International Farm Organization proposed to let the world know that farmers are not prepared to starve for maximum production, and accept penalty for doing so. They will insist on assured markets and remunerative prices for efficient production as prerequisite to a continuation of maximum output. I.F.A.P. "reported its deliberations," is in no doubt that a virile and expanding agriculture, working to supply all people with an adequate supply of food and clothing is the most creative approach to lasting peace... the Food and Agriculture Organization must be transformed into an effective instrument and be vested with the necessary authority and finance to develop its work.

### Farm Cash Receipts

THE U.S. Department of Agriculture reports that for the first three months of 1950, cash receipts to farmers amounted to 5.5 billion dollars, or seven per cent less than the first quarter of 1949. The Dominion Bureau of Statistics reports

that Canadian farmers during the first three months of 1950 secured receipts from the sale of farm products amounting to \$407,586,000, or about two per cent lower than for the same three months in 1949. The reason for this comparatively small decrease appears to be that cash income from the sale of field crops amounted to 113.1 million dollars or eight per cent less than for the same period a year ago, while income from the sale of livestock was 182.3 million dollars or nearly seven per cent above the figure for a year ago. Except for hogs, prices were higher for all livestock, and marketing increased for all livestock except sheep.

### World Food Production

THE U.S. Bureau of Foreign Agricultural Relations has provided index numbers of world production in countries involved in the European Recovery Program (Marshall Plan). Over the whole 15 countries included, agricultural production, weighted by value, showed an increase between the years 1947-48, and 1949-50 which is represented by the index figures of 82 in 1947-48, and 96 in 1949-50. Individually for the 15 countries the corresponding figures are as follows: Austria increased from 64 to 76; Belgium 80 to 96; Denmark 80 to 98; France 78 to 92; Western Germany 68 to 87; Greece 91 to 103; Ireland 89 to 95; Italy 89 to 100; Netherlands 72 to 101; Norway 92 to 105; Portugal 113 to 102; Sweden 105 to 119; Switzerland 92 to 99; United Kingdom 92 to 108; the combined increase for the Benelux countries (Belgium, Netherlands and Luxembourg), was 75 to 100. In all index figures, an index of 100 is the equivalent to prewar production in these countries.

### British Subsidies Breakdown

THERE has been considerable discussion in the United Kingdom as to the proportion of food subsidies provided by the United Kingdom government for home-produced and imported food consumption. Figures for some individual food products will help to clarify the situation both as to the cost to the British government, and the degree of emphasis placed on individual items.

For 1949-50 it is estimated that the total subsidy will amount to £344.3 million of which £160.9 million will be



subsidy on imported foods, and £183.4 million on home production. Milk and potatoes are the only two items for which the subsidies will be wholly on home production, the amount being £62.7 million for milk, and £15.4 million for potatoes. For bread and flour, including acreage payment to British producers, the total will be £94.4 million, of which £21.5 million will be on home production, and £72.9 on imports. In the case of carcass meats, home production will receive £32.1 million subsidy, and the imported products £1.3 million. Shell eggs will

provide £25.8 million subsidy on home production and £4.8 million on imports. Butter and cheese represents the reverse. For butter the subsidy on home production will be £1.4 million, and on imports £50.7 million, while there will be £2.7 million subsidy on home-produced cheese, and £17.5 million on imported cheese. There will also be £14.9 million subsidy on milk in schools, £22 million on the national milk scheme and £4 million on vitamin foods and national dried milk, totalling £34.5 million on "welfare" foods, all home-produced.

## Get It At A Glance

*News briefs relating to farming here and elsewhere*

THERE was recently organized in Kansas City, by about 150 delegates from several western states, the National Association of Wheat Growers, primarily to provide a commodity group specifically to represent the wheat grower in Washington.

IN 1949 farm implement sales in Canada totalled \$220,710,000, or more than \$50,000,000 more than in 1948. Of the total amount, 65 per cent or \$143,502,000 worth were purchased in the prairie provinces.

THE Saskatchewan Department of Agriculture recently announced a stallion purchase assistance policy which will apply to all breeds recognized by the Minister and will cover 25 per cent of the purchase price of a stallion to a maximum of \$200 on any one animal.

FARMERS throughout the world use approximately 11,350,000 tons of chemical fertilizer annually at the present time. This is an all-time peak. Nevertheless, an F.A.O. fertilizer and land-use specialist recently told a meeting of provincial fertilizer men at Ottawa, that many more million tons are required to provide necessary increases of food for hungry people.

THE prairie provinces are not the only part of Canada to suffer from grasshopper damage. Last year in the province of Quebec, grasshoppers are reported to have eaten up \$13,000,000 worth of crops, mainly along both sides of the St. Lawrence River.

A FAMILY type co-operative farm has recently been organized at Hudson Bay, Saskatchewan. Land, livestock and equipment on 800 acres, of which 300 acres is under cultivation, will be pooled.

THE Argentine is finding it difficult to obtain sufficient dollars for the purchase of certified Canadian seed potatoes. Argentina growers would like to buy 300,000 Katahdin and 60,000 crates of white rose potatoes, but has been unable to make large imports of certified seed from Canada or the United States since 1947.

THE population of the Netherlands has nearly doubled since 1900. During the same period Holland's agricultural land area has been increased by 11 per cent or from 5,625,000 acres to 6,250,000 acres. With a population of 697 per square miles, even the reclamation of new land from the sea does not keep pace with the growing population.

OF all goods imported by the United Kingdom in 1949 only 13 per cent were financed by the Marshall Plan (E.C.A.). Items paid for in this way included one-third of all wheat and flour, as well as sugar, one-fifth of cheese, one-tenth of bacon, one-quarter of petroleum, two-fifths of raw cotton and one-half of tobacco.

IN 1949 fifteen new credit unions were given status bringing the total in the province of Manitoba to 146. Membership stands at 30,595, an increase of 5,084 during 1949. Assets increased by 33.4 per cent to \$5,255,118.

THE British Government is turning to private trading with some South American countries. Recently bulk buying was given up on some non-rationed canned meat from four countries: Argentina, Paraguay, Uruguay and Brazil. Imported canned meat was taken off the British ration list in May.

THE Saskatchewan Power Commission has announced that it will spend \$5 million in 1950-51, hoping to bring electricity to an additional 2,400 farms. Much of this money would be required for generating additional power and maintaining plant facilities.

FEDERAL regulations under the Animal Contagious Disease Regulations Act have been amended by adding a new section dealing with the use, cleansing and disinfecting of aircraft used for the transportation of animals.

RECENT figures indicated that 4,225 cattle herds were under supervision by the Health of Animals Division of the Federal Department of Agriculture for the control of Brucellosis or Bangs Disease. Of all these herds, 1,960 were listed as being free of the disease.

HULL insurance rates on ships using the Hudson Bay route this year have been reduced by a third, as a result of representations made by the Saskatchewan Government.

EARLIER this year, what was described as one of the greatest green bug outbreaks in modern agricultural history, occurred in the wheat states of Texas, Oklahoma, New Mexico and Kansas. In one state, Oklahoma for example, about 400,000 acres were sprayed with about 100,000 pounds of parathion. About 100 airplanes were used to save approximately half of this acreage.

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to use than last year. In 1949 the cost of the product on an acid content basis was 22.6¢ per ounce. The new Weed-No-More "80" costs you only 12.2¢ per ounce of acid. The reduction in cost of acid amounts to 46%.

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The tests showed that the most effective weed-killer contained four ingredients—oil, coupler, emulsifier and ester. Any formulation that lacked any one of these ingredients

was found to be inferior. Each ingredient was tested, to be absolutely certain the most effective ingredients possible went into the formulation.

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**The Right Ester**—The butyl ester of 2,4-D is the best solvent for the waxy coatings of weed leaves and is the least volatile of the common esters.



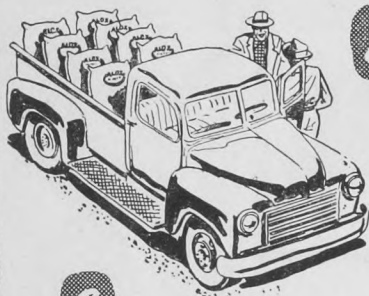
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## LIVESTOCK



[Guide photo]  
Shade is desirable for good gain on pasture. The fact that these animals do not have it, makes it no less desirable.

### Nutritional Diseases

FARM animals are like human beings in this respect, that if their diet is generally insufficient, or if it is deficient in one or more important nutrient materials, symptoms of unthriftiness may develop, or specific diseases may appear.

Perhaps the most common cause of unthrifty appearance is a general insufficiency of feed. Where under-feeding occurs, there are likely to be shortages in several of the individual nutrient materials such as protein, phosphorus, vitamin A, and perhaps others. The symptoms indicating these individual shortages will tend to complicate the diagnosis. Also, where insufficient feed is available for the individual animal, it may be that the effects are the result of a lack of materials responsible for energy. Where these are lacking, slow growth, loss of weight, increased death loss and failure in reproduction may occur. On ranges where pasture is insufficient, animals will tend to eat more poisonous plants, and to be more easily affected by parasites and diseases.

Where protein is short in the ration the result may be poor growth, lessened appetite, lower milk production, inability to breed regularly and loss of weight.

All good stockmen make sure that salt is available to animals, almost, if not actually, at will. A deficiency of salt is followed by an intense craving for salt, a lack of appetite, and general unthriftiness appearance.

There are areas where phosphorus is deficient and these areas are fairly widespread, particularly in drier regions such as western Canada where, as a matter of fact, phosphorus is the one fertilizing material in which a major portion of our soil is deficient. As plants mature they generally contain less phosphorus. When forced to subsist on phosphorus-deficient foods, beef animals show less phosphorus in the blood, their appetites decrease and they gain more slowly. In addition milk production will fall off, and calves or young stock will be weaned at lower weights. Accompanying these conditions is what is called an abnormal or depraved appetite, indicated by a specific craving for bones, excessive eating of salt, or even to the eating of dirt, stones and wood. In extreme cases carcasses of dead animals may be eaten. A disease showing symptoms of paralysis, which in some places is called loin disease, may fol-

low. Animals going a long time without sufficient phosphorus will be in poor condition, lame, with stiff joints, and the percentage of calf crop in cattle will drop.

Calcium may be deficient, and in beef cattle the symptoms may not be very conspicuous. In young, growing animals, with insufficient calcium, bone development will not be satisfactory, and the gain will be less than optimum. In severe cases fractures may occur regularly. The addition of calcium, where needed, will increase the rate of gain, lead to better use of feed, produce stronger and heavier bones, and improve the market grade of market animals.

Iodine is generally deficient on the prairies or in inland areas, and hairlessness in pigs or dead, weak, or goitered calves may result from this deficiency.

A shortage of iron is often associated with a shortage of cobalt or copper. These result in anemia. Some of the nutrient materials, such as cobalt for example, are needed only in very minute quantities, but their presence is extremely important. It is well for the feeder to realize that the ration of any farm animal must be balanced, not only as to quantity, but as to quality, and that the lack of some vital nutrient may mean a distinct economic loss.

### Milk Off-Flavors

THE universal importance of milk as a food, coupled with its susceptibility to the action of bacteria, followed by souring and spoilage, makes it very important to treat milk with extreme care. Another reason is that milk is very susceptible to off-flavors which may arise from many causes.

An unnatural flavor derived from food taken into the cow's body will manifest itself within a very short time, if milk is drawn from the cow. This is the reason why, during the summer months especially, many different kinds of feed produce characteristic off-flavors unless they are fed very carefully. Among these are turnips, weeds of various kinds, cabbages, rape, kale, green corn, millet, clover, alfalfa and many other plants, including the onion and its relatives. Silage must be included in this group if it is carelessly made, or has become mouldy or decomposed, and especially if made from corn.

Bacteria which gain entrance to the milk after it leaves the cow, are a

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serious source of off-flavors. Contamination by bacteria may arise from the hair of the cow falling into the milk, or small bits of dirty straw or tiny particles of manure. Machines that have not been properly cleaned, utensils that are dirty, hands that have not been washed before milking, and water that is not pure, are all sources of bacterial contamination which may result in off-flavors. Other causes not arising from bacteria, are bits of soap left in the milk utensils, or other materials such as soda which have not been thoroughly removed by washing before the machines are used and produce off-flavors and taint.

Sometimes, if a cow has indigestion, a bitter type of off-flavor will result in the newly drawn milk. It is well known that udder troubles such as mastitis will produce milk of unpleasant flavor. Certain medicines given to cows will develop a characteristic taste in the milk. Smelly substances used on sore udders or teats can produce taint, as well as certain metals—copper, nickel, brass, bronze or rusty cans or metal surfaces—coming into contact with the milk. Even exposure of milk to direct sunlight may result in a tallowy flavor.

All of these undesirable flavors are, of course, to be avoided. They can be partly removed by prompt aeration and cooling, but the two really efficient methods of preventing the off-flavor in the first place are careful and judicious feeding, accompanied by absolute cleanliness. Dirt is the prime enemy of healthful milk.

### Coal For Pigs

**P**IGS seem to like to eat coal, and many people have believed that coal has a beneficial effect on the growth and general condition of swine.

Investigators at the University of Wisconsin came up with the answer that there is nothing to this idea. Certainly the pigs like to eat coal, but it seems to be just because they like chewing on something which crunches.

These investigators conducted two feeding trials, in each of which a group of pigs was divided into three lots. Each lot was fed a good basic ration of corn and oats, soybean oil meal, tankage and alfalfa leaf meal. One lot received no coal; the second, soft coal, free choice; and the third, hard coal, free choice.

The pigs ate the coal all right, particularly when they were in the period of middle growth, and the average of coal consumption indicated that when fed coal, free choice, a pig would consume up to one-quarter pound per day. When fed coal the pig also will take more feed per pound of gain, especially if they are fed soft coal. However, this is a decrease in efficiency which, when added to the cost of the coal, increased the cost of gain substantially. This was true to the extent that the pigs fed soft coal put on gain at a cost of \$1.15 per hundred pounds more than when no coal was fed. The extra cost in the case of those fed hard coal was 42 cents per hundred pounds.

The Wisconsin workers thought perhaps the reason pigs liked coal was because they had a craving for minerals. So they included ground limestone and iodized salt in all pens, free choice. The pigs did not eat much limestone. The coal-fed pigs ate appreciable amounts of salt, especially those getting the hard coal. Another

point noted was that the pigs receiving coal had just as many round worms at the time of slaughter as those receiving no coal at all.

### About The Horn Fly

**A**MONG the two-winged flies which breed in manure and are pests of livestock, is the horn fly, so named because of its habit of resting at the base of the horns on cattle. This fly is primarily a cattle pest, although they will attack horses, sheep and dogs. They even show a preference for black animals, or those dark in color.

They congregate in clusters and prefer the side of the animal that is in the shade, choosing especially that portion near or on the withers where the animals find it most difficult to swish them off.

In some parts of Canada this particular fly is the worst biting species affecting cattle. It is smaller than the house fly or the stable fly, and its color is a uniform dark grey, with a shorter, stouter proboscis. It can generally be recognized, as well, by its peculiar habit of resting with its head facing downwards.

The horn fly lays its eggs in fresh manure, not more than about two dozen eggs being laid by each female during its lifetime. The white larvae, as soon as the egg is hatched, burrows into the manure near the surface, and when full grown, finds its way to the soil where it changes to a dark brown vial-shaped pupa. From egg to adult fly occupies about two weeks, so that many generations are possible during a single season.

Because of their clustering habit on the backs of cattle, these flies can be controlled by spraying three or four times during a season. It is possible to use a spray of DDT in wettable powder form, at the rate of about two ounces of the powder in three gallons of water, or four pounds of a 50 per cent wettable DDT powder in 100 gallons of water. Wetting the backs of the animals will give plentiful control for a period of two to three weeks and will require about one-half gallon of spray per animal. For a small herd, a small compressed air sprayer will be adequate.

### Washing Milking Machines

**T**HE Division of Bacteriology and Dairy Research, Dominion Department of Agriculture, Ottawa, has found that a weak lye solution of not more than .5 per cent is most effective in maintaining the rubber parts of milking machines in good sanitary condition. This method is perhaps the one most commonly used, but has been open to the objection that the directions called for a stock solution.

Recent studies at Ottawa have been concerned with the feasibility of adding the required amount of lye directly to water, to make the solution in which the rubber parts are soaked. Mixing is very necessary, otherwise different portions of the solution show variations in strength.

The method recommended is to add two heaping teaspoonfuls of slaked lye to a pint of cold water in the supply jar. Rotate or stir this until dissolved, then dilute with cold water to make one gallon of solution. Drain off one pint and pour back in. To be sure of uniformity of strength, keep the can of lye closed when not in use, to prevent the lye from absorbing moisture from the air and caking.

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says Gustave Troutman, of Milton, N.Y.

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Yes, farmers know there's nothing like Absorbine for helping to relieve lameness due to windgall, sore shoulder, fresh bog spavin and similar congestive troubles. Not a "cure-all," Absorbine is a time-proved help . . . used by many leading veterinarians, too, for helping to relieve puffs, strains and bruises.

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The safest way to assure top quality milk during the hot summer days ahead. Cools milk down to 50° in one hour. Holds it within 3½° of any desired temperature. Stops costly rejects. Saves you the time and expense of cutting and hauling ice. Drop in models for 4 to 24 cans. Portable models for 4 to 12 cans. Parts and service coast to coast assures your Wood's Cooler will be on the job the year round.

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1949	13,478	490	3.64%
1926	13,064	446	3.41%
GAIN	414	44	.23%

Holsteins are the breed with the future

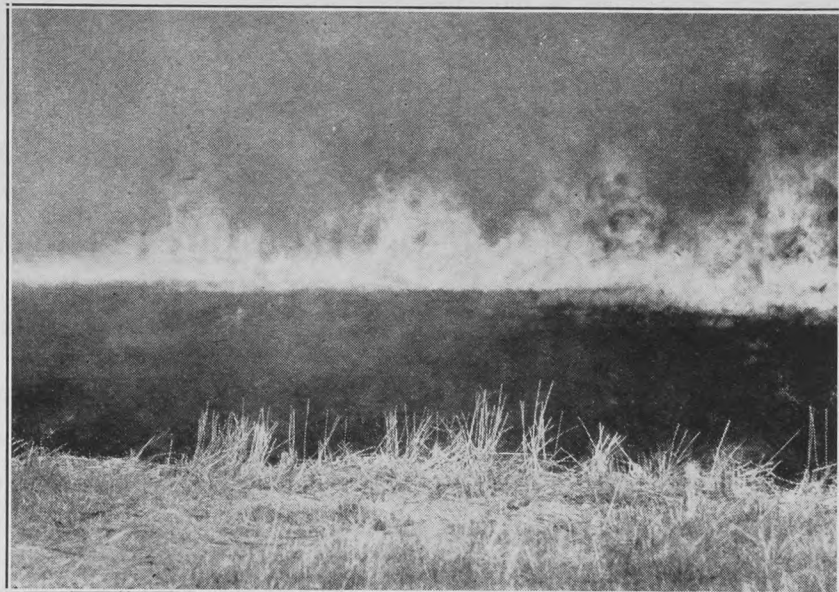
Write

THE HOLSTEIN FRIESIAN ASSOCIATION OF CANADA

BRANTFORD

ONTARIO

## FIELD



[Photo: Nat. Film Board] Dry, hot weather and a carelessly handled match, coupled with too much wind, can produce this effect in short order.

### Disk Maintenance Pays

A HOE must be in good condition if it is to do good work; disks on tillage machinery require similar care. Sharp, bright hoes are easy to work with and require less power on the part of the operator; sharp, bright disks cut through plant growth and soil with a minimum of resistance, providing a saving in power of from 10 to 30 per cent over dull, rusty blades.

As each disk blade is drawn through the field it must first cut the material in its path. This is done by the rolling action, which does not consume much power if the blades are sharp. As the blade moves forward at an angle to its direction of travel, it is forced against a wall of soil. The action of the soil as it is moved to the side does cause heavy pressure against the blade, particularly when the blade is rusty and caked with lumps of clay. Bright blades slide the earth away with a rolling action which contributes greatly to power and fuel savings.

Maintenance of disk blades should become automatic for thrifty operators. A few minutes each evening proves to be adequate for daily maintenance. A thorough check-up and repair job should be done each fall.

Manufacturers who have selected the material for the blades make the following suggestions for daily maintenance during the working season:

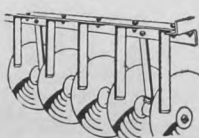
1. Scrape off the soil which has accumulated on the disk blades during the day's harrowing or plowing.



Scrape off soil.

We are all familiar with the corrosive action of moist soil on steel. A small paint scraper is handy for this cleaning but any piece of thin metal will serve as a substitute. Besides preventing corrosion, cleaning eliminates the interference with work which is so commonly caused by caked clay on the blades.

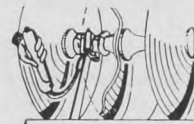
2. Adjust the scrapers. Most harrows and plows are equipped with adjustable scrapers which remove most of the soil from the blades during operation. Proper and care-



Adjust scrapers.

ful adjustments of these scrapers is important to first-class operation. Make adjustments to the point where the scrapers clean off all possible dirt, without excessive abrasive action on the metal. It is well to make this adjustment after each use of the harrow, as considerable shifting is found after a day's work.

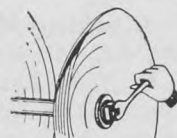
3. Lubricate the bearings. This point cannot be overemphasized. Proper lubrication of bearings in a disk machine results in smooth operating characteristics in just the same manner as automobile lubrication affects the bearings of a car. This fact should not be minimized.



Lubricate as recommended.

The original equipment manufacturers' specification books, in every instance, indicate that lubrication should be done after each day's use—and those instructions are based on engineering research.

4. Tighten the nuts on the arbor bolts. Many disk blades are broken unnecessarily because gang nuts are not drawn up tightly; the resulting "slack" causes premature breakage of disk blades and spool castings. Therefore check, and if necessary, tighten nuts on arbor bolts; longer service from disk blades will certainly pay for the time expended. It is particularly important to check on the gang bolt nuts after a short run with a new machine.



Tighten arbor bolts.

Daily maintenance should become a habit. Well-cared-for disks require little cleaning and bolts and nuts can be checked by rapid visual inspection. Lubricating and cleaning a few blades takes but a minute. The time is well paid for in fuel savings, in reduced repair costs and in the output of high-quality work.

### Cut Hay Early

IN haying it is the early bird that gets the best hay. Most hay is cut too late to be of the best quality, according to the Dominion Experimental Station at Swift Current. Greater yields do not result from delay in cutting, because after the plant has flowered very little growth

of stems or leaves is made. Moreover, the protein content drops rapidly after flowering, both in grasses and in legumes. In crested wheat grass it decreases from about 13.8 per cent when the heads are emerging from the sheath, to only 8.5 per cent protein three weeks later.

Added to early cutting, rapid curing and handling makes the better quality. Bleaching by sun and rain causes a considerable drop in vitamin content as well as other constituents. When the weather is dry and hot, light stands of grasses dry rapidly and may often be raked and stacked one-half day after cutting. In good drying weather, even heavy stands of grasses and legumes, which require somewhat longer to cure, may be cut in the morning and raked in the evening.

### Cereals After Sod

AT the Dominion Experimental Station, Beaverlodge, a nine-year experiment offers some proof that a partial season of moisture storage is advisable after land which has grown forage crops is broken up, before it is seeded again to cereals. In this experiment wheat following July-plowed sweet clover, averaged 3.2 bushels per acre more than wheat following October breaking.

Most forage crops draw heavily on soil moisture. In extreme cases, where a grass or alfalfa crop has been down a number of years, the soil moisture may have been exhausted to the depth of extensive root systems. The fibre of the grass rots slowly, and in this process moisture and plant food reserves are drawn on. This suggests that the decomposition of the broken-up sod ought to be well advanced before another seeding is made.

The Beaverlodge authorities point out that sod of legumes rots readily and therefore releases the plant food freely. Creeping red fescue is one of the best grasses in this respect, but its very heavy root system decays more slowly than the root systems of legumes. Brome, timothy, and crested wheat grass, we are told, decompose slowly, so where these grasses are broken up, a considerable length of time between breaking and seeding should be left in order to rot the sod thoroughly. In the Peace River area, breaking is advised in early July, with adequate cultivation afterwards to encourage the decay of the roots. Where land is sod-bound, it is advised that it should be shallow plowed late in the autumn, treated as fallow the next season, and sown to grain the next year.

### Crop Quality Will Count

UP to the present time in agriculture, there has been a tendency to value land according to the quantity of crop which it will produce. The time may come sooner than we think, when it will be the quality of crop produced which will receive most consideration.

As the science of soils, plants and animals develop, scientists are beginning to find that all crops of the same plant are not of equal food value, even though they may be sown with the best of seed, on the best of prepared lands and grown under very satisfactory climatic conditions. The actual health-giving qualities of two lots of oats, wheat or barley, may vary substantially if these happen to be grown on soils of different quality,



or if they represent two different varieties.

Something of this is indicated by a recent comparison of oat varieties by the Central Experimental Farm, Ottawa. It was found that oat varieties varied from 14 to 17 per cent in protein. Some varieties contained twice as much fat as others. In fact it would require 111 pounds of Victory oats to equal the protein in 100 pounds of Cartier oats, and it would take 203 pounds of Exeter oats to equal the amount of fat in 100 pounds of Roxton oats. The varieties in this test were grown at Agassiz, B.C.; Scott, Saskatchewan; Winnipeg, Manitoba, and Ottawa; and the average protein content of all varieties tested was lowest at Agassiz, and highest at Winnipeg and Scott. The fat content was higher from Scott than anywhere else.

### Double Spray Job

THE North Dakota Agricultural College reports the experience of a farmer in North Dakota who used 2,4-D for killing weeds and Toxaphene for the control of grasshoppers, in the same application. For equipment he used what is described as an ordinary home-made ground sprayer and applied the combined chemicals to 200 acres of wheat.

The comment of the farmer, Robert Ekre, Beach, N.D., was that "the success of the whole operation is in doing the job at the right time. Crop conditions, weed growth and hoppers all must be at the right stage to get the best results."

### About Crested Wheat Grass

WORK done at the Dominion Range Experimental Station at Manyberries, Alberta, over a ten-year period, with crested wheat grass, indicates that if a suitable seed bed is provided there will be no significant difference in the stand of crested wheat grass after a ten-year period either as to the density of the stand or yield, whether the seed is broadcast or seeded, or whether the rate of seeding is one or 12 pounds per acre. The report of this work is to the effect that the density of the stand of crested wheat grass seems to be controlled by the condition and vigor of the native vegetation on the range land. In no case did the stand seem to be decreasing after ten years, and in most cases was increasing very slowly.

It is interesting to note that at Manyberries, experience is to the effect that even in a wet year the density of the stand is not changed to any particular extent, though the yield will increase substantially. Even in spring-flooded areas the density of the grass was only increased by 39 per cent, but the yield was increased by as much as 370 per cent over crested wheat grass grown on dry land.

It is also found that native sod is not suitable as a seed-bed for crested wheat grass unless the sod has been substantially eliminated by drought or cultivation. Stubble or annual weeds are preferred. The plants establish themselves slowly and heavy grazing is detrimental the first year after seeding. Likewise, heavy spring grazing on old stands of crested wheat grass encourages other grasses to invade the area, if seed of them is available. Crested wheat grass, on the other hand, does not readily invade adjacent leafy sod.

# Farm Service Facts

No. 14W PRESENTED BY



IMPERIAL OIL LIMITED

## Pays To Check Harvest Machines . . . Early

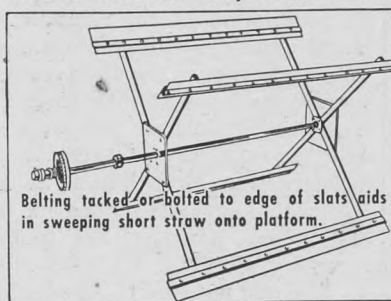
Combines and swathers have many fast moving parts, in which there may be considerable wear in a harvest season. Even in well cared for machines, it will pay to look over all

working parts, well before starting this year's harvest. Costly field delays may be avoided, as needed repairs may be ordered and installed in plenty of time.

### Pays To Know Each Machine

The most important adjustments to be made on any combine are (1) setting of the cylinder speed (2) adjustment of the concaves and (3) getting the correct grain speed in relation to the crop. The operating manual which goes with each combine, gives the correct speeds for that particular model. A careful study of the manual

will be very helpful in adjusting the combine to crop and field conditions. A speed indicator should be a part of the equipment of each combine, and the speed checked before and during the season's operations. Because the cylinder speed may have been right last year is no assurance that it will be right this year. For example, the tension on the governor springs on the engine may change even if the adjustment has not been changed. Correct cylinder speed is especially important . . . since most combines have the secondary drives taken from the cylinder. So . . . when cylinder speed is correct, all other parts will be working at their intended speeds. On many machines, the correct speed is lettered on the side near the cylinder.



Belt tacked or bolted to edge of slots aids in sweeping short straw onto platform.

### How To Align Cutting Bar

The cutting bar, with its guards and sickle, should be in a straight line from end to end. Sagging can usually be removed by adjusting the trusses and angle irons which support it and tie it to the back wind board. In case this does not remove the sagging, the cutting bar may be jacked up on blocks until it is in a straight line.

It may be necessary to put weights on the high sections. Then, when proper alignment is reached, it can usually be maintained by again making adjustments with trusses and angle irons. Worn knives and ledger plates should be replaced since these also play a part in doing a good cutting job, without undue strain.

### Other Things To Check

Clean all grease and dirt off boxings. Examine bearings on: cylinder and beater, straw racks, elevators and augers, reel, pitman and fan. Replace if much wear is shown. Check grain pan for leaks and damage. Slip

clutches should be tried out for safety, and engine and power take off drives checked. Tires should be correctly inflated (see manual) especially if extensions are built to grain tanks, thus creating overloading on tires.

### How To Make V-Belts Last Longer

When attaching V-Belts, all tighteners should be loosened, as prying the belt over the edge of the sheave with a bar will often rupture one or more of the cords. All belts will stretch when new, and this initial stretch should be taken up promptly and tension checked often in the first few days. Otherwise slipping and burning will occur, cutting down the life of the belt. More belts are ruined from lack of tension than from excessive tension. Occasionally a belt is found to have rolled or turned. This is caused by lack of sufficient tension or improper installation. The condition of the sheave flanges has a bearing on belt life. If they are spread apart or mutilated, the belt will not give satisfaction. Try to keep grease

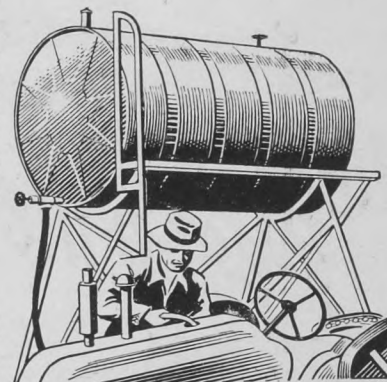
off belts when lubricating nearby bearings. If any grease is smeared on, it may be wiped off with a rag moistened in gasoline. However, belts should not be dipped in gasoline to clean. After removing at the end of the season, it is best to clean with warm soapy water. Then hang in a cool dry place, and not exposed to the elements.



Do not pry belts over sheaves; release tighteners



## PAYS to have a Storage Tank



A storage tank on the farm can more than pay for itself in the first year. It's a guarantee that you will have plenty of tractor fuel when you need it . . . when harvests are ready and even a few hours delay can cost you plenty. With an overhead mounted tank there's no time lost in refuelling . . . no wastage from spilling . . . no dust or grit in your fuel line. There's an added advantage . . . safety . . . when tanks are located well away from farm buildings. Tanks come in three sizes . . . all reasonable in price.

### PAYS . . . to fill tanks with Imperial Fuels

Whatever type of tractor you drive . . . there's an Imperial tractor fuel to give you top performance. For high compression tractors, it's Esso; for medium compression, choose Acto for smooth, purring power and plenty of it. Imperial Tractor Distillate is your best bet for low compression motors. Gives you surging power . . . lots in reserve for the toughest spots.

See Your Imperial Oil Agent

Next Issue of Farm Service Facts . . . Selection and Installation of Space Heaters



# 2 GREAT FARM BATTERIES...

## New Prest-o-lite "Tractor" Battery

### Shock Resistant Construction

Here's a battery that's specially made for dependable tractor service—gives strong starting power, long life, low cost operation.

Made in Canada



## and Prest-o-lite "Hi-Level"

needs water only  
3 times a year  
in normal car use

Hi-Level has three times greater liquid reserve... Fibre-glass mats keep power-producing material in the plates 70% longer average life.\*

Made in Canada



**A**void battery grief by making your next battery a Prest-o-lite. Try it!—See for yourself how much more value you get in the sensational Prest-o-lite Hi-Level Battery...\*gives you 70% longer average life in tests conducted according to S.A.E. Life Cycle Standards. When you need a new battery see your local Prest-o-lite Dealer.

PREST-O-LITE BATTERY COMPANY, LTD.

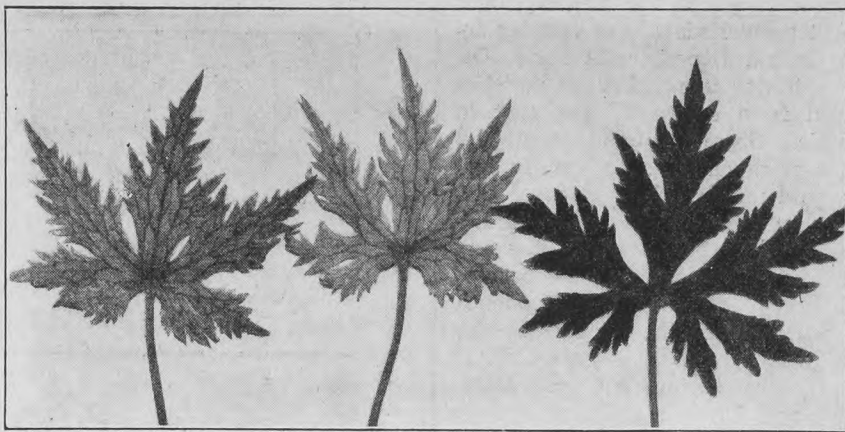
Toronto 4

Ontario



# Prest-o-lite BATTERIES

## HORTICULTURE



These leaves represent degrees of chlorosis or yellowing of leaves, most often caused by the high lime or alkaline nature of prairie soils. To remedy, try spraying with one ounce of ferrous sulphate to one gallon of water on a cool day adding juice of one lemon to the water.

### Vegetables For Exhibit

**F**ROM the middle of July on, vegetable crops will be maturing, and simultaneously, the fairs and exhibitions, both large and small, will be showing creditable exhibits of vegetables. It is important that vegetables be well selected and prepared for exhibition because placings will be made by well-qualified judges, not only on the actual quality of the vegetable, but to some extent at least on its preparation by the exhibitor. Fair boards and horticultural associations do not always use the same score card for the guidance of their judges, nor is it possible to have the same score card for each type of vegetable. The Saskatchewan Horticultural Societies' Association suggests scoring for beets, carrots and parsnips. For beets the suggested scoring is: Color—30, form—15, size and texture—15, freedom from side-roots—10, freedom from blemishes—15, and uniformity—15. For carrots and parsnips the suggested scoring is color—15, form—15, size and texture—15, freedom from blemishes—15, freedom from side-roots—10, smallness of core—15, and uniformity—15. Compare these then with the score for tomatoes which is: Color—20, form—20, size—10, meatiness and quality of flesh—20, freedom from blemishes—15, and uniformity—15.

These illustrations will serve to point up the fact that the selection of specimens for exhibition needs considerable care so as to balance the most desirable characteristics for that particular vegetable. In greater detail the suggestions for some of the more important vegetables as given by the Saskatchewan Horticultural Societies' Association through the Agricultural Extension Department of the University of Saskatchewan are as follows:

**Beans:** String beans should be long, straight and uniform as to size and color. Pods should be tender, brittle, free from stringiness and with the seed not very fully developed.

**Beets:** Medium size, not over three inches in diameter, free from side-roots, color dark red, crown small, compact and free from splits, scaling and sunburn. Flesh of a dark red color, free from white rings, tender and firm. Tops should be removed. Some varieties have satisfactory form, but lack good flesh color. It is suggested that the exhibitor grow two or more varieties, if possible, and then select his exhibit from the variety which shows the largest percentage of roots with good inside coloring.

**Carrots:** Medium size, smooth, straight, free from sunburn and side-roots. The core should be small and the flesh tender, sweet and of a bright color. Where there are separate sections for long and stump-rooted varieties, be sure to enter in the correct section. Tops should be removed.

**Cauliflower:** Heads of medium size, pure white, compact, regular in form, and with no green leaflets showing throughout the head. The stem and larger leaves are removed; those leaves remaining are trimmed off level with the head.

**Celery:** Heads should be large and compact, with long, firm, crisp, leaf stalks of medium thickness. Stalks should be free from blemishes and pithiness; color, clear and uniform. The heads should be free from prematurely developed seed stems and the leaf stalks well blanched except in winter varieties. The loose, outer stalks are removed and the roots trimmed down to a conical point.

**Corn:** Garden corn should be shown in a fresh, edible state only. Ears should be of fair size, uniformly filled from tip to butt with straight rows of well-developed, evenly spaced kernels. Husks should be opened, but not removed.

**Cucumbers:** Garden varieties—length not over nine inches, smooth, straight, firm and tender, uniform in shape and color for the variety. Seed development not great.

**Lettuce:** Head lettuce—large, round, firm heads; leaves tender, crisp and free from discolorations. Leaf lettuce—should be crisp, tender, well wrinkled and uniformly green in color.

**Melons:** Muskmelons should be symmetrical, firm, evenly ribbed, finely and uniformly netted. They should be well ripened, with thick flesh and of high quality. Melons should be cut and tested for quality by the judge. Watermelons should be symmetrical, firm, smooth, uniformly colored and ripe. Quality is determined by removing a small, triangular portion. This should show a thin rind and a thick, firm flesh of deep color and good flavor.

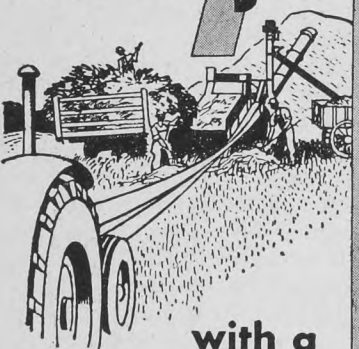
**Onions:** Large—should be well matured, dry, firm, with small dried neck; skins intact. Shape globe, round or flat and color red, brown, yellow or white, according to variety. Roots and tops should be removed. Pickling onions—size uniform, half to three-quarters inch in diameter. They should be clean, firm, well matured and dry. Skins clear and bright, white color preferred.



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**Try The**  
**EX-LAX**  
**Way**  
**EASY to Take**  
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Good for Children and Adults  
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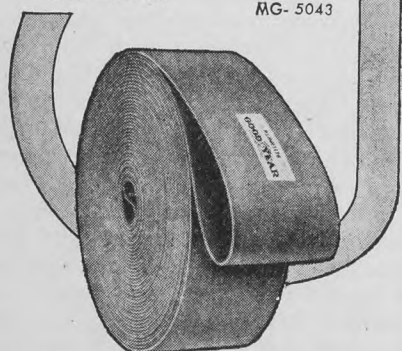
**Get a**  
**GRIP**  
**on the job**



**with a**  
**GOOD YEAR**  
**KLINGTITE**  
*Endless*  
**FARM BELT**

Klingtite is the endless farm belt that will give you dependable, low cost service, for years to come. Records of up to 20 years service are not unusual. Its special friction surface really clings, transmits ALL the power under any weather condition, wet, dry, cold or hot. It is so flexible that breaking-in is unnecessary. Specially designed for heavy farm drives. No more costly delays when you use KLINGTITE. Also supplied from the roll for other belt drives.

MG-5043



**GOOD YEAR**  
**KLINGTITE**  
**BELTING**

Goodyear farm belting is available at your local dealer. Consult him for all your belting needs.

**Parsnips:** Shown without tops. They should be smooth, straight, free from side-roots, and tapering gradually to tip. The crown should be broad and uniformly hollowed; core, small.

**Peas:** Pods should be long, straight, uniform in size and well filled with tender, sweet-flavored peas of good green color. Avoid all pods showing blemishes, or signs of ripening.

**Potatoes:** Form and color typical of the variety. Tubers should be smooth and firm with eyes few and shallow. Size medium, from eight to 12 ounces according to the variety. Tubers should be free from internal and external diseases and also free from mechanical injury and sunburn; flesh firm and white.

**Pumpkins:** Should be of medium size, symmetrical, closely ribbed, heavy, mature and of good color. Stem attached.

**Radish:** Medium size, young, crisp and firm, smooth, free from side-roots and of a clear, bright color; neatly bunched. Globe and long varieties should not be mixed. Winter radishes should be shown in a separate section.

**Rhubarb:** Stalks of medium size and thickness, length preferably about 18 to 20 inches, uniformly straight and of good red color, brittle and tender. Stalks should be trimmed top and bottom.

**Squash:** Winter—should be large, heavy, firm and symmetrical. Color and shape typical of the variety; stem attached.

**Tomatoes:** Fruits medium in size, smooth, firm, free from cracks or blemishes, well rounded and uniformly colored. Flesh solid throughout, thick, meaty cell walls and small core. Stems should be left on, but cut short.

**Turnips:** Medium size, smooth and firm, free from side-roots and with a small tap-root. Flesh tender, color uniform, yellow or white according to the variety. Tops removed.

**Vegetable marrow:** Should be symmetrical, of medium size (16 to 20 inches long), smooth and straight. The rind formed but soft enough to admit a thumb nail readily. Stem attached.

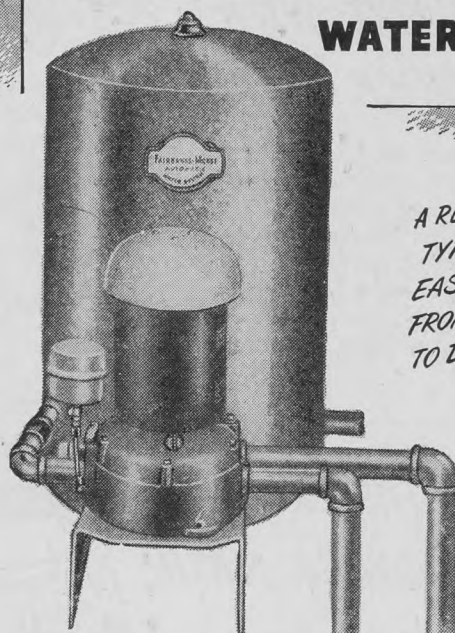
### Small Fruits Bulletin

THERE has been need for an adequate small fruits bulletin, well illustrated, and dealing with such fruit crops as strawberries, raspberries, currants, gooseberries, and other miscellaneous fruits such as grapes, blueberries, saskatoons and bush cherries. This need has now been met for Alberta growers by Bulletin No. 54, published in March, 1950, by the University of Alberta, and entitled "Small Fruit Growing in Alberta."

Written by Dr. R. J. Hilton, Professor of Horticulture at the University, and Olive D. Lancaster, the new bulletin covers pretty well all phases of each of the main types of small fruits likely to be grown in Alberta, and includes brief comments on some of the other less common fruits. It discusses and suggests remedies for each common insect pest and disease; outlines satisfactory cultural methods, including measures for winter protection; describes the most desirable soil types and the methods of soil preparation; and includes brief notes about varieties, training, pruning, irrigation and harvesting.

**NEW! NEW! NEW!**

## Fairbanks-Morse CONVERTIBLE EJECTOR WATER SYSTEM



A REVOLUTIONARY **NEW**  
 TYPE SYSTEM -  
 EASILY CHANGED  
 FROM SHALLOW  
 TO DEEP WELL



Performance-Proved  
 to deliver the volume  
 of water it is rated  
 to pump.

This new type Fairbanks-Morse Convertible Ejector System is a thoroughbred in every respect — design, manufacture and performance. It is sturdily built and simple and economical to operate. Here's how it works. You install the Convertible Ejector as a shallow well system. When you need more water, or when falling water levels compel you to go to greater depths, all you do is install the low-cost conversion parts to change from shallow well service to deep well duty. You are saved the expense of an entirely new water system. Available in 1/4, 1/2, 1, 2, 3/4 or 1 hp. models that can be installed over the well or away from it. All models are shipped completely assembled ready to install. See your F-M dealer for full details.

This simple kit is all  
 you need for Deep  
 Well Conversion.



A simple conversion kit enables you to change from shallow to deep well service with one pump! It is easily installed inside the pump. Saves buying another water system.

This balanced bronze impeller is the only moving part in this Fairbanks-Morse pump. It will last as long as the pump is used.



The John Crane Shaft Seal accomplishes perfect sealing. Saves power. Quality-controlled construction throughout. Needs no attention for long periods of operation.



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A Complete Line of Performance-Proved Water Systems.  
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## HENS LAY MORE WITH "MIRACLE" LAYING MASH

Once pullets have started to lay, they need a ration that will complete their body growth, maintain their health, and at the same time give them the extra elements needed for the production of eggs. In other words they need Miracle Laying Mash — the fourth step in your profit-building feeding programme. Feed Miracle Laying Mash for higher, faster egg production.



OF-55

## POULTRY



At this time of year shade and good range are particularly important.

### Finely Ground Feed

POULTRY producers are often in some doubt as to the relative merits of coarse, medium and finely ground feed. A study has recently been completed at the Experimental Farm at Nappan, Nova Scotia, which indicates that finely ground feed is the most economical.

In the experiments the finely ground feeds were scarcely more than cracked. A screen with 12 meshes per inch retained 48 per cent of the coarse, 17 per cent of the medium and seven per cent of the finely ground feed. It was found that the birds preferred the coarsely ground feed and consumed more of it than of the medium and finely ground, but this extra feed used did not produce any more eggs. The birds fed medium and finely ground feed ate less, but produced just as many eggs.

The experiments were based on flocks of 100 Barred Rock hens. The feed consumption was 30.22 pounds a day for the birds fed the coarsely ground ration; 28.73 for the birds fed the medium and 28.22 for the flock on the finely ground ration. The birds fed the fine and medium-ground ration ate between 40 and 60 pounds less feed a month for the 100-bird flock.

It was also found that egg production was down for the birds on coarsely ground feed. For every 100 pounds of feed consumed the birds on finely ground feed laid 210 eggs; the group fed the medium, 196 eggs, and the group fed the coarse feed laid 189 eggs. Using a finely ground ration was responsible for a saving of two pounds of feed a day per 100 birds and an advantage of 21 eggs per 100 pounds of feed consumed when compared with the coarsely ground feed.

However, the fat must be available, points out S. Bird of the Poultry Division, Central Experimental Farm, Ottawa. The availability of fat for the development of adipose tissue has been successfully practised for centuries. English, Belgian and French poultry-fattening industries have flourished without the use of estrogens, merely by creating fattening conditions. Actually estrogens can be used liberally and lean birds still produced by having the ration low in fat and lacking in certain of the B vitamins, so that available carbohydrates are burned up as energy and very little is converted to fat.

Estrogens are not cure-alls or easy short cuts to the rearing of fat broilers from birds raised under ordinary range conditions. If a ration of wheat, oats, barley and pasture is provided, the addition of a little estrogen, or the placing of an estrogen pellet under the skin of the neck will not provide a fat bird. If fattening conditions are provided, estrogens have their place, and will lead to a greater deposition of fat on the broiler.

### Geese on the Farm

POULTRYMEN would not seem to be fully exploiting the possibilities that are offered by a flock of geese on the farm. This may be because there are few large-scale breeders and it is not easy to acquire goslings in the spring. Also, little scientific work has been done to develop the most desirable characteristics in geese or to determine their exact nutritional requirements.

The man who produces geese, in spite of the problems, finds that they can be raised with relatively low feed costs. They can be kept in good breeding condition on a ration consisting of good-quality alfalfa or clover hay, and whole grain consisting mainly of heavy oats. It is believed that results will be improved by the feeding of a hatching ration, such as is used for chickens, for at least a month prior to the laying season. This is usually fed as a wet mash once or twice a day, with an evening feeding of grain.

The real economy of goose production becomes apparent when the birds begin to range. Geese are able to graze more readily than other birds, and if they are provided with plenty of green, succulent pasture they will need little else, will grow rapidly, and will make cheap gains.

### Chemical Caponizing

THE use of estrogens as a fattening agent has been widely advertised. It is established that estrogen doses at reasonably low levels will reduce size of testes and produce withered, pale combs in cockerels up to 12 to 14 weeks of age. This leads to the widely held view that "chemical caponizing" will cause the fattening associated with true caponizing.

Estrogen will only be effective if other conditions are right. It is a powerful agent for the development of connective tissue and those tissues that are meant to accommodate fat cells will be able to hold more cells when they are developed by estrogen.

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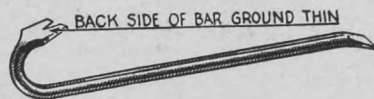
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## Workshop In July

Gate-fixing and paint-up hints for summer

### Saving Lumber

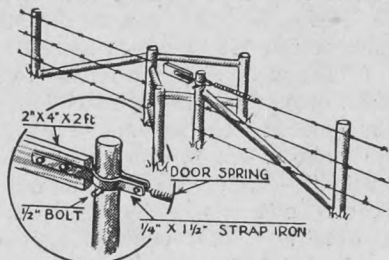
Large wrecking bars are standard equipment on most farms—they are also the cause of a lot of lumber damage. I recently tore down an old shed which had pine siding that split very easily. I bought a 10-inch wrecking bar and ground down the back of the claw until it was thin enough to be



driven under the nail heads with a few taps with the hammer. The nails would start to raise a bit, at least enough to be caught with the large bar. Occasionally the lumber was gouged slightly but this was hidden later by two coats of paint. The small, thin bar saved considerable lumber for me.—I.W.D.

### Self-Closing Gate

This V-type gap is most useful around the house fences where people pass through frequently and animals are to be kept back. The fence on one end branches out to form an open "V." The single end from the other side carries a swinging board. A coil spring behind the board holds it closed or in line with the fence except when it is pushed open by people

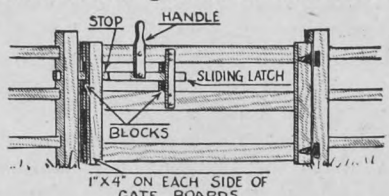


passing through. The board should be at least two feet long but should not touch the center post of the "V" since that interference would prevent it from swinging in both directions.

The metal straps and collar are formed from two pieces of flat iron. The pin through the back of the straps should be three inches from the post to give the spring proper leverage in returning the swinging board. A bit of grease under the collar will make it operate more smoothly on the post.—I.W.D.

### Corral Gate

This gate is particularly handy for work around pastures and corrals because it can be opened by a rider without dismounting from his horse. A horizontal slide moves back and forth to lock or open the gate. It rests on two blocks inserted over the center boards of the gate itself. The slide is



moved by a handle which is pivoted on the top board with a bolt and is fastened to the slide with a similar bolt. The slide must be free to move up slightly when in the open position. If cattle or horses are likely to move the slide or rub against the handle, a safety bolt should be inserted through the upright guide at the back end of the slide.—R.H.

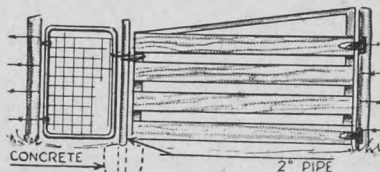
### Painting Screens

Paint brushes cause clogging of the openings of hardware cloth or screening used in doors and windows. The same paint can be thinned out and applied with a small fly-spray gun. The latter system is more speedy, can be just as thorough, and with reasonable care will avoid clogging any of the squares with paint.—F.M.S.



### Double Gate

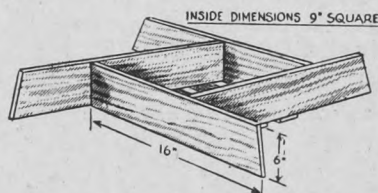
Every power farmer will require at least a few double gates for wide machinery. They should provide clearance of at least 16 feet and preferably 19 feet. Handy widths are eight feet for the small side and 12 feet for the wider one. Concrete must be used to



hold the center post between the gates. Wooden posts can be used but are not as lasting or strong and if the fit is tight, they will not be removable in wet weather. The best system is to wrap a two or two-and-one-half-inch pipe with heavy waterproof paper, then pour in the concrete around it. After the concrete has set, remove the wrappings from the post and apply some grease. Each gate should be chained separately to the post so it can be opened independently.—W.M.K.

### Salt Block Stand

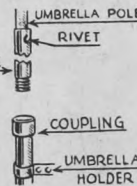
This salt block holder can be made from a single six-inch board and some nails. Cut the board into six pieces, two of them 10 inches long with square ends and the other four



measuring 14 inches along the top and 16 inches along the bottom and having one square end. Nail the longer pieces together to form a nine-inch square box with the long sides of the boards all at the bottom. Nail the two shorter pieces on the bottom of the box, leaving space between them for drainage. This unit will keep the salt clean and will not tip easily.—A.W.

### Umbrella Holder

Pipes and couplings can be used to form an umbrella holder for the tractor. If the joints are kept greased, they can be uncoupled by hand and will save a bit of time and trouble. Place a short length of pipe over the handle of the umbrella and rivet the two together. Clamp a short piece of the same size pipe in the umbrella holder. Put a coupling on the top of the clamped pipe so the umbrella can be screwed securely in place. A few turns of the umbrella will mount it on the tractor or detach it as required.—J.W.S.



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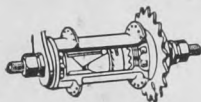
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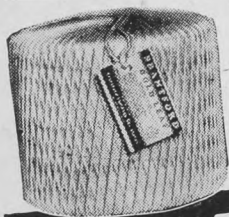
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501

## FARM YOUNG PEOPLE



The members of this English farm club are getting a lesson in the building of stone fences.

## Know Your Plants

*Time spent becoming familiar with plants is not wasted*

A KNOWLEDGE of local plants can make life on the farm even more interesting than it would otherwise be. Most people are familiar with the very common plants but have no acquaintance with the less common species that grow in their area. Such knowledge can make a walk over the fields an interesting experience.

A knowledge of taxonomy—technical name for the identification of plant species—also has some very practical values. An obvious one is the possibility of more readily controlling weeds. Some plants are highly susceptible to 2,4-D, while others are highly resistant, and knowing each weed and its characteristics makes it more likely that correct treatment will be made.

Added to this, plants are a natural expression of soil and climate, so a knowledge of plants gives a good basis for judging the composition of soil and subsoil. Wolf willow often indicates an area with a rocky or gravelly subsoil, sand grass grows in a light, sandy soil and foxtail frequently indicates an alkaline soil.

Taxonomy is not as difficult a study as might at first be indicated. In general, broad groups of plants, known as families, are separated on the basis of relatively simple and clear-cut characteristics. The families are subdivided into genera and the genera into species, always on the basis of some plant differences. It is, of course, necessary to have some knowledge of the parts of the plant, but this can be obtained from any book on botany. Further reference books are available that permit a positive identification to be made. If the plants under study are weeds, there are well illustrated bulletins available from Dominion and Provincial Departments of Agriculture, as well as from some of the elevator companies.

If identification proves impossible the plant can be sent to the nearest Dominion Experimental Farm or College of Agriculture, or to the Dominion Department of Botany at Ottawa. If this is done it is necessary to get the whole plant, including the roots, leaves and, when possible, the flowers or fruit. The plant should be

placed between several thicknesses of newspaper and mailed between two pieces of cardboard. If the plant is poked into an envelope for mailing it dries out and breaks up, and identification becomes unlikely.

Learning to identify plants in your area may require some work and concentration but it will be found to be very well worth the trouble.

### Why Did You Miss?

MOST of us at one time or another have blamed a wild shot on the fact that we did not hold the rifle steady and the kick sent the bullet high. An experiment conducted by a cartridge company in the United States indicates that this argument is just not good enough to account for all the bad shooting.

They mounted a 30-30 with the butt resting in a steel pocket lined with sponge rubber, and the barrel supported by its own weight on a hard rubber cylinder. Two and a half inches in front of the muzzle of the rifle they stretched a thin copper wire.

When the rifle was fired a carefully timed photograph showed the bullet cutting the wire, and the barrel of the rifle still seated on the rubber cylinder. In other words, the bullet had left the barrel before there was any "kick." The rifle was reloaded and another picture taken as the bullet cut a wire 30 feet from the muzzle. This picture showed that the recoil had raised the rifle barrel three-quarters of an inch above the cylinder. This means that the bullet is well clear of the rifle before the recoil begins to show any effect. Even if you hold a high-powered rifle loosely in your hands it will hit the mark if it is aimed straight.

### Scottish Clubs

YOUNG Farmers' Clubs are a prominent part of the agricultural scene in Scotland. There are 154 such clubs with 7,137 affiliated members and 3,121 associate members. The Scottish Association of Young Farmers recently collected more than £5,000—over \$15,000—from this membership to buy property in Edinburgh for a national headquarters.



## 4-H For Learning

Continued from page 10

animals are now divided into four groups according to quality. The best are given a red ribbon, the second best a blue, the third best a white and those poorer than this get no ribbon. In a class of 45 calves it is quite possible for there to be 10 blues, 15 reds and 10 whites and 10 with no ribbon. They are not placed in order in their classes. Thus 35 of the 45 exhibitors may receive a ribbon to take home. New exhibitors are encouraged and it is made difficult for some first-class breeder or feeder to steal the show every year. They are finding the system satisfactory, though they do run into considerable opposition from some of the bigger feeders and breeders. A further advantage of this system is that one or two top exhibitors do not get a fancy price and a lot of publicity while the rest of the members pass unnoticed. The new member who is making his first exhibit is just as important as anyone, even if his exhibit cannot compete on equal terms with that of the member who is an old hand. The system is devised to try and make the new member feel that he counts.

NO area has a club imposed upon it from the outside. The club belongs to the community. The community must decide if they want a club. Members join if they feel they want to take part. After they have joined the members themselves choose a local leader and, ideally, an associate local leader. They decide what projects they wish to undertake. They may choose a home project or beef or sheep or dairy or grain or anything that they wish, though it is generally considered wise for a new club not to undertake too many projects. When they choose their projects discussion and study periods are held and in time a field day is staged. Throughout the whole organization period help is available from extension agents, but the initiative must come from the local area.

There is a very large organization behind the small local club. The work is carried on through the co-operation of the local county, the State Agricultural College and the United States Department of Agriculture. Extension Service is a part of the United States Department of Agriculture, and 4-H club work is one phase of the extension program. It is also one of the divisions of the State Agricultural College. Extension permeates the whole agricultural government organization from the national to the county level.

THE county extension agent—who parallels our agricultural representative—is the contact with the local club. He works directly with the young people in the county through 4-H clubs and other organizations. He also works with the county 4-H council. This council consists of volunteer leaders and selected 4-H members from the county, and interests itself in club work throughout the area which it serves. In effect, it is over all of the clubs in the county, and if well organized can be one of the strongest stones in the foundation of club organization.

In the local club the officers are chosen from the members of the club

by the membership at large. These officers are in charge, under the guidance of the local leaders. The members of the club themselves plan the yearly program. This will include arranging the number and the place of meetings, planning the program for each meeting, planning and organizing tours, picnics, recreation, exhibits, demonstrations, judging work and the like. They will also select special activities such as conservation, music appreciation and so on.

THE individual member owns his or her project, manages and carries out project work and keeps a detailed project record throughout the year. The members are expected to take part in meetings and club activities and to take advantage of all opportunities for practical experience. The member closes each year by turning in a completed record. The work throughout the year is designed to provide opportunities for the members to think, plan and do things for themselves.

Every year there are county-wide events. There is a county-wide achievement day—a showing of work done throughout the year. There are also summer camps in most of the counties. These are largely concerned with games, singing and sports. Project work is kept out of the summer camps so that the young people have a chance to relax and play. There is also a recognition event in most counties at which there is a banquet and recreation program, and prizes and badges are awarded. On a state-wide basis there are conservation camps to which a small quota of delegates are taken to study conservation. The Achievement Institute is held once a year, delegates being chosen on the basis of merit.

CLUB work can teach North Dakota's young farmers many agricultural facts. Orryn Heine, Ellendale, Dickey County, started in 4-H club work when he was 10 years old. He started with garden and poultry projects, and has since had corn, farm and home improvement, dairy, soil conservation and wheat projects. Nine years have gone by, but he still carries several of these projects. In the soil conservation project he has practised and studied seeding to grass, crop rotations, tillage methods designed to conserve moisture, effects of application of barnyard manure and commercial fertilizer, and has kept detailed records on all of this work. His work in the other projects has been equally detailed.

Added to this, he has assumed executive office in his local club, and has learned to conduct meetings; he holds a position on the county 4-H council, and is treasurer of the 1950 Achievement Institute. He has judged agricultural produce at county, state and national competitions, and has attended 4-H meetings throughout North Dakota.

Perhaps Heine has been capable enough to make the most of all opportunities that offered. His is not an isolated example, however. In club work many have widened their experiences and increased their knowledge as much or more than he has done. All who are members have learned something about agriculture that they would not otherwise have known, and have learned more about the happy and essential art of co-operating with their fellow men.



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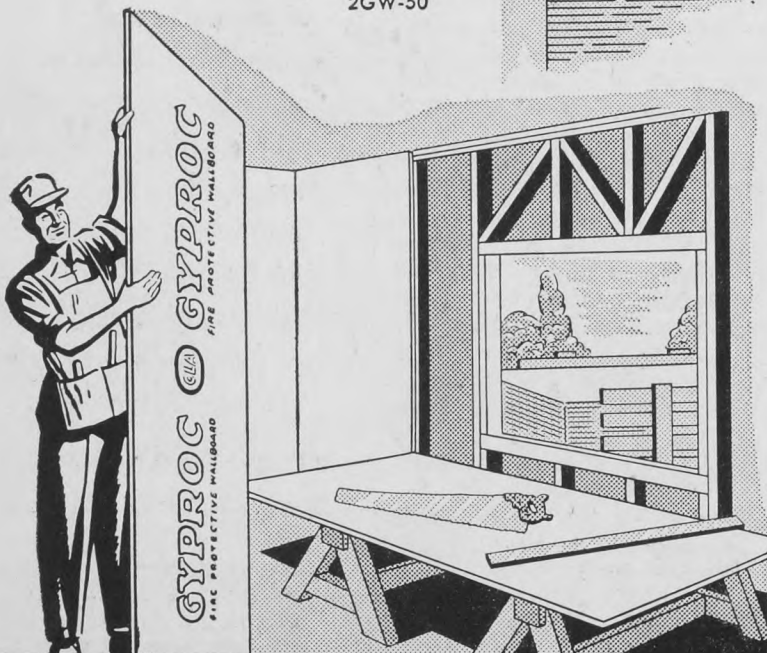
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## 100 Senior Students

Continued from page 11

WHAT about fertilizers? Extensive and careful work on most of the soils in Alberta (except the brown soil) shows that large increases in yield can be obtained by using recommended fertilizers. Co-operative trials on a field scale using the farmers' own equipment have been carried out in many locations. During the period 1943-49, 54 such trials on the dark brown and thin black soils of Alberta showed that the average yield of the check strips was 26.3 bushels per acre, while even 15 pounds of 11-48 ammonium phosphate gave an average increase of 5.2 bushels per acre or an increase of 20% in yield. When 50 pounds was used, the increase was 10.2 bushels per acre or 38%. It is true that not every test gave increases, but these are averages of 54 tests over a widely scattered area.

Results for black soils show the same thing for both wheat and barley, and the increases expressed as percentages are exactly the same for the two crops. Only 15 pounds of 11-48 ammonium phosphate gave 18% increase, 25 pounds gave 22%, and 50 pounds gave 31% increase.

On most grey soils, fertilizers are a "must." The phenomenal results obtained by the use of legumes and fertilizers on these soils are shown by the work of the Department of Soils at the University of Alberta. Most of a large bulletin has been written about this work, so little can be given here. It is true, however, that the growing of wheat in rotation including clover, but without fertilizer, has given a 17-year average yield of 14.9 bushels of wheat per acre. The best fertilizer treatments have produced 17-year average yields of 35 bushels per acre, or an increase of 134%. For the last seven years the two best fertilizer treatments have given nearly three times the non-fertilized yield.

It should, of course, be realized that such great increases result only when fertilizer is used with the legume as well as with the grain crop. The fertilizer produces more legume, and the legume increases the fertility of this grey soil. Fertilizer without legume is of comparatively little value as is legume without fertilizer. The recommended use of both makes the difference between good yields and starvation.

Results of Saskatchewan fertilizer tests show similar effects for similar soils. The average increases are almost the same as in Alberta.

You would think that every farmer in these areas would be using fertilizer. Are they? The highest estimate for the grey, black and dark brown soil zones in Alberta is that 25% of the land is being fertilized. Only 25% of the farm land is giving the higher yields that small quantities of fertilizer would guarantee on the average. Furthermore, these phosphorus-containing fertilizers speed up maturity. Some farmers on Alberta black soils claim that wheat and barley matures a week earlier if 35 pounds of ammonium phosphate is used. This may mean more than the increased yields in years when frost comes early.

And then there are weeds! Some farmers plant them—then wonder why the crop is dirty. Some say 2,4-D has made it unnecessary to worry about weeds. Several of the students referred to at the start of this article said that "if weeds get bad, I'll spray with 2,4-D." These students are quite likely wrong. It is true that 2,4-D is a valuable help in fighting weeds, but it does not take the place of clean seed and good cultivation methods. Weeds cause very heavy losses and many farmers fight them continuously and successfully. To be successful, this battle must be continuous, and every means at the farmers' disposal must be used. Spraying is not a way of getting out of other work.

ONE has only to drive through the countryside to see that many farmers don't put much stock in good methods of cultivation. On May 2, I drove 90 miles northeast from Edmonton through a farming area ranging from very good black soil to poor grey soil back to black again. In some districts the soil is heavy, in some it is rather light. I saw thousands of acres of summerfallow—every acre of it bare. Not a single farmer along that road used a trash cover of any kind. On the north and south roads, wherever the soil was at all sandy, the ditches were full of topsoil and the knolls blown bare. Even the heavier soils had blown.

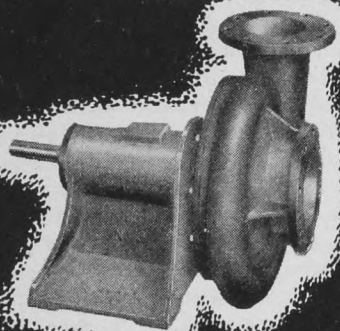
And what were the farmers doing to prepare this land for seeding? Yes that's right—they were harrowing with dragharrows in a high wind. Every outfit could be seen for miles; easily recognized by the huge dust cloud kicked up by the harrow and carried by the wind. The land was dry and powdery, and much more will blow every day until we get rain or a new crop comes up to cover the soil (if it does). But this new crop will be poorer than it should be because the farmers have paid no attention to the



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advice regarding bare land, and a lot of the topsoil has blown away.

All this has occurred in an area where farmers and students say that wind erosion is not a problem! On this same day, with a high wind, four farmers were burning stubble — and getting a good clean burn, too. So even where they had cover they got rid of it—presumably because the land will be easier to cultivate. It will also blow a lot easier.

Perhaps I'm all wrong—and perhaps these hundred students are all wrong. Perhaps we should rejoice that 49% of the seed samples were not rejected, and that 25% of the farmers use fertilizer. Perhaps we should be glad that many farmers in the south do use a trash cover on their fallow and that some farmers on the black and grey soils have done away with fallow altogether.

Perhaps, to go back to Gordon O'Brien's article, we should emphasize the need for conservation in its broad aspects, and should be glad that there has been some increase in acreage of grasses and legumes. We should be, and are, delighted that a few farmers in Alberta are asking for assistance in planning permanent production programs for their farms. But that is a different story.

What I set out to do here was to show that many farmers are not by any means using the best methods of farming. They are not using proven practices, and they are not using clean seed, or properly treated seed, or seed that they are sure will germinate. They are not taking advantage of yield increases proven to be given by fertilizers. Some are not even growing satisfactory varieties.

I THINK that most of us are happy to know that there are good farms, properly managed, to be found in every part of Alberta, and I am sure in Manitoba and Saskatchewan as well. These farms serve to underline the idea behind this article. Many of the neighbors in all these districts are not getting good returns because they aren't doing the best that can be done.

Finally, let me emphasize these things. Conservation is urgently needed in all its phases. The returns a farmer can expect to get from good conservation practices may be slow to come and hard to see. The returns from suitable varieties, good clean seed properly treated, the use of fertilizer and the adoption of well-established methods of cultivation will mean money in the farmer's pocket this fall—and next fall.

The total extra that he will get from all these things added together will make a very large figure.

How much? Well, a conservative estimate is an increase of 30%, and this is based on extensive surveys and studies in several places. Nobody can afford not to get a 30% increase in returns from his farm. There are a few farmers who are getting most of it; some who are getting some of it; but many who are getting none of it.

So, I think the hundred senior students are right. The farmers of western Canada as a group are not getting the increased value of farm crops that science has made possible. Most of them can blame themselves but can change this picture if they will.

I know it's worth the effort. How about it, Mr. Farmer?



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**MONTHLY**

#### Further Observations From Britain

*The June MONTHLY COMMENTARY contained some observations on British conditions made as the result of a visit to England by the writer of this page. These are continued below.*

London, June, 1950.

The Rt. Hon. C. D. Howe, Minister of Trade and Commerce, was in England during May, discussing wheat. During his visit a number of newspaper reports implied that Mr. Howe had been seeking a renewed contract for wheat with Great Britain to replace the four-year contract which is coming to an end on July 31. Official statements made after Mr. Howe's return to Canada is that nothing of the kind had been arranged, but it seemed to be implied that a satisfactory understanding had been reached that Britain would continue to allot to Canada the purchases of North American wheat made by that country.

It is unlikely that Mr. Howe would have attempted to negotiate another wheat contract with Great Britain. No doubt had he been willing to do so, he might have been able to make a contract for some specific quantity of wheat if Canada would accept the minimum price under the International Wheat Agreement, but except on such a basis, which would have been quite unacceptable to the Canadian consumer, it seemed quite impossible that another contract should be made.

Of course, the contract made in 1946 turned out quite favorably for Britain because the course of prices on world markets actually experienced during four years was quite different from that which was anticipated. It could be supposed that authorities in Great Britain, after a favorable experience of that kind feared that things would not turn out quite so well another time.

Much more important, however, is the fact that contract buying and price negotiations between different governments have fallen into disrepute.

Experience with some other bulk contracts was highly unfavorable, and the government found itself paying much higher than world market prices, a fact which was widely publicized to its embarrassment. Then the government found that purchasing tea through a government organization was not nearly as satisfactory as letting the trade handle that commodity, giving greater attention to quality than the government organizations had been able to do. Again, manufacturers have been complaining bitterly against having their raw materials bought for them by the government and having to take whatever qualities and quantities of different grades may be assigned to them. They claim that if they are to compete in world markets, they must be allowed to do their own buying on a quality basis. There has been an unhappy experience in attempting to negotiate a new beef contract between the British and Argentine governments. While negotiations hung fire the Englishman was deprived of his beef. There is now a widespread opinion to the effect that it is danger-

ous to attempt too long to make price contracts between different governments, which are likely to lead to grave political misunderstanding.

It is quite true that bulk buying by governments accords with the principles of theoretical socialism. The present government however, appears to be modifying its former adherence to such principles and to be more inclined to conduct business from time to time on the basis of settling immediate problems. Mr. Strachey, the former Minister of Food, was of course a great exponent of the theory of pure socialism. But Mr. Strachey has disappeared from that office and his successor seems to be more inclined to practical considerations.

A short time ago a committee of the House of Commons, containing naturally a considerable labor majority, recommended to the government a return of a large part of grain buying to the private trade, with a re-opening of the Liverpool market. Since that time, the government has been conducting extended conversations with the grain and flour trades, with a view to determining what practical measures in that direction might be worked out at the present time. There are considerable difficulties in the way. For one thing the operation of traders would be hampered by exchange controls, which, under present conditions cannot be abandoned by the government. Then, the cost of flour and bread is heavily subsidized by the government at the present time and to remove such subsidies would mean great increases in prices, which would be resented.

But the government will not commit itself in advance to any specific total of Canadian wheat for the year nor to any level of prices to prevail over a specified time. Instead, it expresses a willingness to buy from time to time whatever quantities it deems necessary, and to pay for those quantities whatever price happens to prevail at the moment for Canadian wheat sold to other markets. Since sales by and to other countries are largely governed by prices prevailing from time to time at Chicago, this in essence means that the price of Canadian wheat to Great Britain, instead of being governed by negotiations between governments, will depend upon the variations of the market at Chicago. That situation will undoubtedly result in criticism, for there is widespread feeling in Britain that the price of wheat on the Chicago market is held at unduly high levels as a result of the policies of the United States government.

#### Other Food Contracts

Of course, bulk buying of commodities is not going to disappear altogether from the British picture. One cannot avoid the conclusion, however, that bulk contracts will be entered into by the government, only when that procedure appears to be necessary in order to procure needed supplies, or when it appears possible to make a highly favorable price arrangement.

Quite possibly we shall see those principles applied to other food commodities which were formerly obtained by Great Britain under contracts with Canada. It may be that



## COMMENTARY

bacon, cheese, apples and eggs, to the extent that such commodities are bought from Canada, will be no longer governed by price contracts between governments, but rather be allowed to be imported by the trade under prices and conditions which prevail from time to time. At one time it seemed possible that the various food contracts of recent years were setting a future pattern for trade. Now it is more likely that they will provide a precedent only in cases of emergency.

### Prospective Changes In Wheat Buying Methods

Other changes in buying methods are expected. Under the contract Britain in essence took delivery of Canadian wheat at the lakehead or Vancouver and paid for it there in Canadian dollars. The lake or ocean freight space in which to carry wheat cargoes was supplied by the British government, either directly or through agents in Canada acting for it and at its expense. Now, efforts are being made to enlarge the function of the British grain trade in wheat handling. For some time the ocean freight market has been quite free, and whenever the government needed cargo space for wheat from Vancouver or from the Atlantic coast, it sent its agents into the Baltic exchange to negotiate freight charters there. The suggestion now made, on which a good deal of work is being done, is that wheat should be bought by Great Britain on the basis of delivery at Liverpool or other British ports, with the freight paid, leaving it to the trade to arrange the freight space and all other details in connection with getting wheat that far. That corresponds to a considerable extent with the procedure now employed for the sale of Canadian wheat to countries of Western Europe and to markets elsewhere. Extending it to Great Britain will increase the problems of the Canadian Wheat Board.

### British Bread

Many people here object to both the appearance and the taste of the bread because, made from flour, which under government direction, is milled to an extraction rate of 85 per cent. That results, in the opinion of critics, in forcing human beings to eat a portion of the wheat berry which might to better advantage go into milling offals and be fed instead to livestock. They point to the contrast with French bread, which is highly palatable, attractive in appearance, and generally satisfactory because it is milled from white flour.

Defendants of the present British flour program claim on the one hand that it is necessary to have a high extraction rate because if a whiter flour were allowed to be milled, it would mean importing more wheat, which would have to be drawn from North America, and result in the expenditure of more dollars. That does not offset the fact that livestock feeding stuffs are scarce in Great Britain, and that to deny a greater use of milling offals in feeding means either that British livestock production has to be smaller than would otherwise be the case, or that feed grain ought to be imported. Other people say that the present milling

regulations are imposed upon the country because some persons in authority think that coarse bread is healthier and are prepared to force it on people who would prefer the finer article.

Canada, of course, would like to see a high flour extraction rate in Great Britain, because that means a greater use of wheat in milling. It means also that more by-products of wheat are used in feeding livestock. To the extent that such by-products are not available to British feeders, demand may be created for other feed grains. These unfortunately Canada is not likely to supply in large quantity for the simple reason that when feed grains are imported the natural tendency is to prefer a heavy grain like corn, on which the freight costs per ton are decidedly less than on the more bulky grains such as oats and barley.

### The "Having Regard" Clause

There is widespread opinion among Canadian producers that something more is coming to them under the "having regard" clause of the Wheat Contract with the United Kingdom. It is impossible to find in Great Britain any support for that opinion. One is left with the impression that unfortunately the clause in question was indefinite in its wording to such an extent that it is impossible for anyone to say with certainty now just what it was intended to mean.

It will be recalled that the wheat contract specified a fixed price basis of \$1.55 per bushel for the first two years of the contract. It provided that the prices for the subsequent two years were to be negotiated later, and Britain agreed that in such negotiations it would have regard to the extent to which the price in question was below the world wheat price for those two years. Many Canadians interpreted this to mean that in fixing prices for the two later years, enough would be added to the prospective world price to compensate for the amount by which the price in the first two years had been below the world price.

The British idea is quite different. They point out that the contract did not undertake to apply world prices during the four-year period to the sale of Canadian wheat to Great Britain. Instead it undertook to establish prices in advance. The negotiators undoubtedly expected, on both sides that a decline in world prices would take place, instead of the very considerable advance which actually occurred. Had there been a decline in world prices, which during the two latter years of the contract period would have brought them very low, the British will concede that there might have been some obligation on their part to pay to Canada something more than prevailing world prices. When, however, world prices were so high as to justify the contract price for the two latter years being put as high as \$2.00 per bushel, they feel that nothing more was required from them in respect of the first two years of the contract.

Quite evidently, it is not as easy to make commercial contracts between different governments as used to be supposed.



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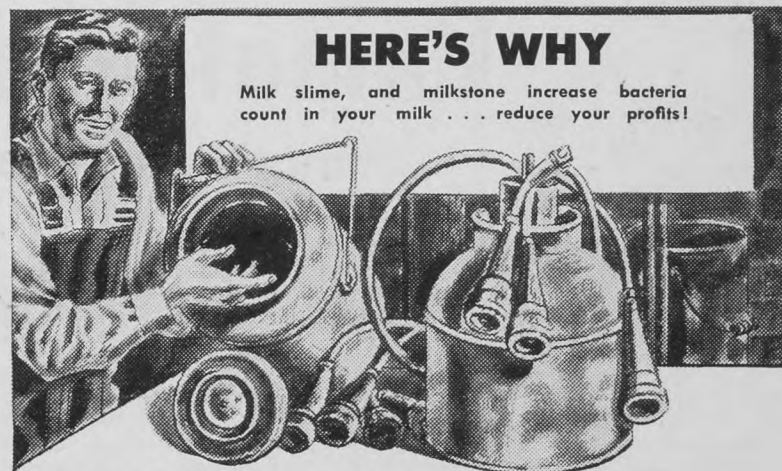
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**V**EGETATION and plant materials which are outdoors will normally be covered with various types of fungi and bacteria. Their propagation is dependent on the presence of proper moisture and suitable temperature. When these conditions are provided, the growth of moulds and spores is inevitable.

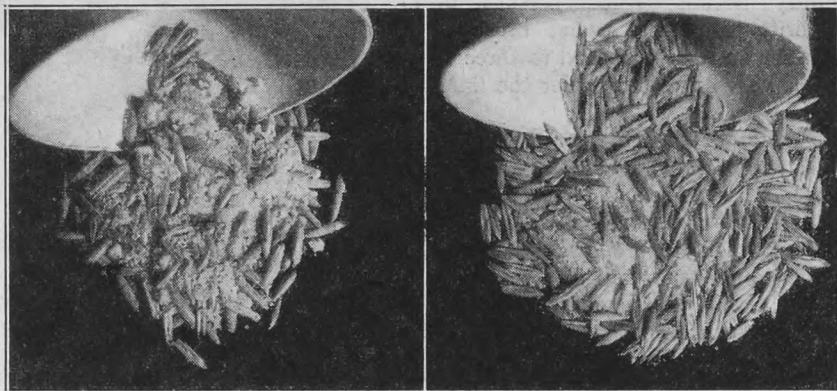
When grain is harvested it normally contains a high percentage of moisture within the kernels. Hay holds a large amount of moisture in the tissues of each stem. After the stems of the plants have been cut from the roots the source of this moisture is destroyed, but the plant material continues to "breathe off" moisture into the surrounding air. This moisture given off into the air spaces between kernels of grain or between stems of hay will, if it is concentrated enough, cause the organisms on the material to grow and produce mould or spoilage.

The critical temperature and moisture conditions which will cause spoilage depend on the amount of material stored and the ventilation in the building. Under average conditions, hay which contains less than 25 per cent of moisture by weight will keep satisfactorily. The critical point with grains is between 14 and 15 per cent moisture by weight. These amounts of moisture will cause a relative humidity in the interstitial spaces of from 80 to 85 per cent.

The action of common table salt in moist air has often been observed. It becomes moist and sticky, forming small conglomerates of the individual granules. The concentration of moisture which causes this phenomenon is variable since table salt contains many impurities. Because of its variable

## Hay and Grain Storage

*A quick, practical method for estimating moisture content and keeping qualities*



Left: Damp oats make the salt crystals wet and sticky. Right: With dry oats the crystals remain unchanged.

composition and behavior in the presence of moisture, it does not provide a good measure for the amount of moisture present. Ammonium chloride, however, is usually sold in a relatively pure form and is therefore much more constant in its reaction. This salt can be purchased from drug stores in bulk.

**C**ONTAINERS for the test should be chosen with care. Glass bottles are not satisfactory since the tests are usually made in the sun, which would cause a concentration of heat in the containers. Waxed cardboard tubes with airtight tops provide the required characteristics. They are also cheap and readily available from locker plants and food stores.

The test for storage condition can be made in the field or at the combine. If the grain is standing in the

field, several heads should be "rubbed out" in the hand. The grain thus obtained is placed in the paper tube and ammonium chloride granules are added in the ratio of about five of grain to one of crystals. Thus to the grain from 10 heads about one tablespoonful of salt would be added. The airtight cover is put on immediately and the whole is shaken about 50 times.

If the salt appears to be sticky and is found in small masses of granules, it may be assumed that the grain is too damp for storage except under the best of conditions and in small quantities. Where the granules show no tendency to adhere together or to the grain, it may be assumed that the grain is dry enough for safe storage in quantity. Borderline cases should be shaken again and re-examined.

If the results are still not definite, it may be assumed that storage would be risky without further drying.

Storage tests may be made with hay in the same manner as with grains. They are more difficult to conduct, however. When hay is in the swath or in the stack there will be great variation in moisture content between the outer and inner layers. In sampling, the tendency is to take some material from the outer layers and some from the inner layers in the hope that the two will balance. Greater accuracy will be obtained by examining all types carefully and selecting some hay which is representative of the average condition. This hay should be used for the test.

Take a handful of the hay thus selected, then trim it to fit loosely into the cardboard tube. Add two tablespoonfuls of ammonium chloride salt and shake at least 100 times. More thorough mixing of the materials is required here than when grain is being tested. Invert the tube and tap it to cause the salt to fall into the lid. Examination and analysis of the results are carried out in the same manner.

These tests on grain and hay can be conducted in a minute or two. Their accuracy can be affected by many variable factors such as dew on the test material, moisture in the tubes or absorption of moisture by the tubes. Persons conducting the tests must also consider what quantity of material is to be stored at one time and what circulation of air will be present to remove heat and excess moisture. With increased experience on the part of the operator, these tests become more dependable.—R.G.M.

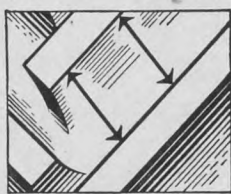
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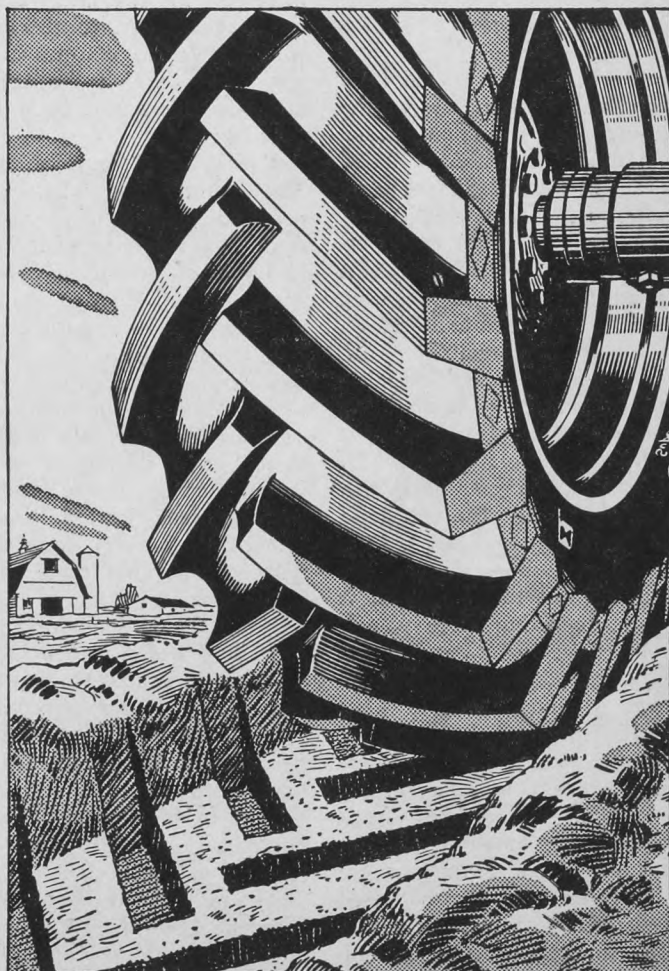
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## Playful Porker

*A complete answer to those who deny porcine intelligence*

By MYRA VENESS

MOLLY was four weeks old—a tiny little pink piggy and very shy; but after three days she found "these people seem not too bad; that mother rubs my back and it does feel good!"

At the end of the first week Molly started talking to us—"Good morning" was one long grunt, and big blue eyes would give you such a knowing look. A few days later and after her "good morning" grunt, I asked her, "Do you want your breakfast?" and she answered for all the world like "hurry up please."

It was not long before we had quite long conversations; she would listen without a sound while I was talking and then it was her turn; then she would stop and look up at me, waiting for me to say something again and so on.

sible. Mike would pick up a stick, holding one end in his mouth and with the other, go near the pig and nearly poke her—not quite. Molly just sat and looked at Mike. I bet she was thinking "what a queer game."

But soon Molly learned to catch the other end of the stick and then the fun really started. A real tug-of-war, just like youngsters. The first day Mike got the stick away and then the performance would start all over again.

Next day Molly got a stick, and it must have been three feet long. She started off to find Mike who was asleep in the sun. Molly didn't "nearly" but really poked Mike a couple of times and the fun started all over again. Such "tugging," one at each end of the stick; such twisting and turning; first one would lose his end and then the other. This went on all afternoon,

*Soon Molly learned to catch the other end of the stick, and then the fun started.*



As our garden was fenced we let Molly run around outside her pen. The first day we thought we had lost her in the woods at the back. I walked to our nearest neighbor, a mile away, to see if she had "scented" their pigs, but no Molly there. After about five hours and when we had just given up hope of finding her, back she came as happy as could be. After that we let her out each day when she had finished her breakfast. She followed us everywhere, and one day when we had gone quite a distance from home, there was Molly grunting at our heels. I'm sure she was saying "you thought you would get away without me, but nothing doing!" It took the three of us, my husband, son and myself, to take her back—she would not go unless we all went!

ANOTHER time my husband was working with other men on a new road, putting in a bridge; the weather was very hot, so I brought them a "pot o' tea." To get there I had to follow a cow trail through the woods, and I had no sooner passed the tea out when the remark was made, "Who's your friend?" and there was Molly, and did she scold me for leaving her behind—in no uncertain terms either! I thought I had been very clever in slipping away without her seeing me! She followed me home like a dog. Sometimes she would get a little way behind and perhaps could not see me—you should have heard the noise she made, saying, in between squeaks, what sound like "hi there, wait for me."

Now, our dog, a black spaniel we think a lot of, wanted so much to play with Molly; but at first Molly steered clear of Mike. Soon, however, Molly and Mike became more friendly and before long they were such pals that they were as much together as pos-

sible. Mike would pick up a stick, holding one end in his mouth and with the other, go near the pig and nearly poke her—not quite. Molly just sat and looked at Mike. I bet she was thinking "what a queer game."

By way of a change Molly and Mike would play tag. You may remember your young days; well, they did it just as it should be done.

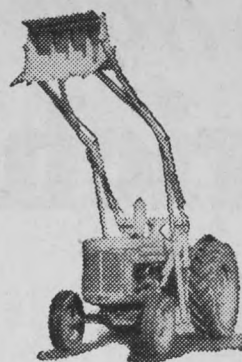
My husband, son and I would talk about Molly; a new house for her and what a wonderful mother she would make; how many piglets she would have. Yes, she would be a model pig and give us a good start in pigs. Well, it was not to be.

Our cow, with her two big horns, did not like Molly, but Molly did so want to follow the cow. For months Daisy, the cow, was always sent off to the other fields and Molly was then let out of her pen and put in before time for Daisy to come back. But one day Daisy came back very early. We heard a sharp squeak, ran out and Molly came to us. There was a mark on her stomach but no skin broken.

We kept Molly in after that and found out what to do for her—a pad and bandage and what a job! But the lump got larger and those who knew about pigs, told us she would be no good now for a sow. So one sad day Molly was made into pork and bacon. Sad, not only because of the hoped-for litters, but we really loved that pig.

We miss her in our walks down the cliff and on the beach. Molly thought it was grand fun and I'm afraid seaweed collecting was often stopped to watch Mike and Molly. It was well worth it. Every now and again Molly would give a jump and twist in the air and such a happy squeak and then off to play again with Mike.

We have another pig but what a difference between the two—this one hasn't an ounce of brains. There will never be another pig like our Molly.



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*Ready for work in all Seasons—  
with the*

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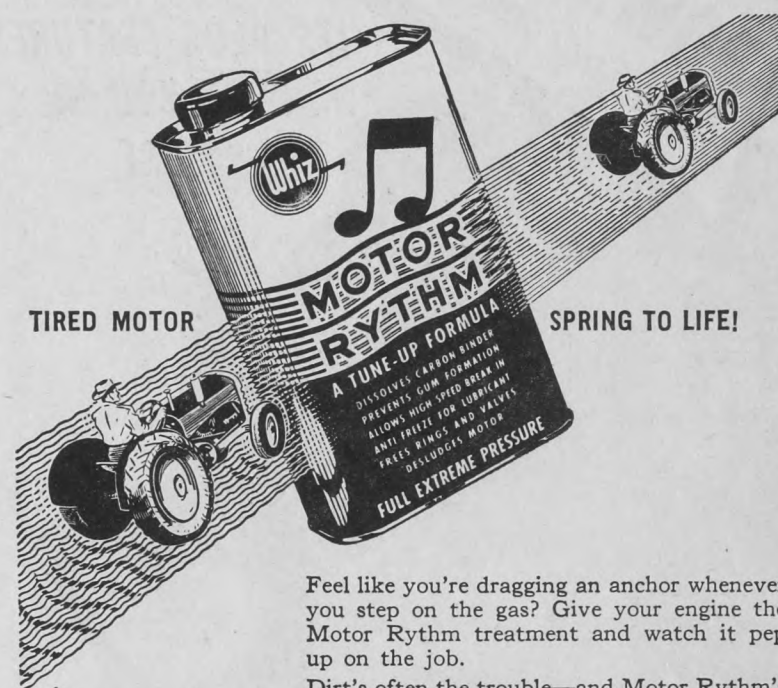
- Manure Fork with dirt and sand plate.
- Haystacker with Hydraulic "Push-Off."
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Twin cylinders, 3,000 lbs. capacity. Universal — same model fits over 80 different tractors — row crop and standard. Powerful and rugged.

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Feel like you're dragging an anchor whenever you step on the gas? Give your engine the Motor Rythm treatment and watch it pep up on the job.

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Use Whiz KLEEN-FLUSH to remove clogging rust and scale from your cooling system. Then keep it clean—and stop water pump squeaks, too—with Whiz RUSTOP. Stop small leaks with Whiz INSTANT SEALER. Together they save you money.



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**CLEANS BETTER** because B.F.G.'s Power-Curve Cleats are *exactly* parallel. OPEN CENTRE tread cleans itself naturally.

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See it at  
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dealer's!

5-50

## Margarine?

Continued from page 7

using ten pounds of butter and six of margarine.

Add it up any way you like and it becomes apparent that Canadians want twice as much spread for their bread. And if it is true, as dairymen allege, that an international cartel is taking over the margarine business which a couple of years ago the Canadian packers expected to have for themselves, the importance of developing a Canadian market for margarine is plain to see.

No convert is so zealous as a new one. Margarine is old stuff to the Yankees, and the increase in consumption in that country has been gradual. Over a lifetime they have built consumption up to six pounds per capita, although that is 37.5 per cent of their total spread. In the first year Canadians got their hands on it they ran wild, and it was not because they were driven to it to replace dollar butter either. In the first year of its availability they consumed 8.3 pounds per person, and the national consumption of butter dropped in one year from 28.7 pounds to 23.9 pounds. Remember now, that 30 per cent of the people in Canada cannot buy margarine. In the provinces where it is banned butter consumption probably did not drop much. So that in order to get a national average like that quoted above, butter consumption could not be much more than 21 pounds per capita in those provinces where margarine could be substituted—a drop of 25 per cent in one year in butter consumption!

OVER a long period of time, Canada exports from eight to ten per cent of her dairy produce, usually in the form of cheese. In respect to butter this country had reached a balance before the legalization of margarine. Canadians exported about as much butter in a decade as they imported. Production and consumption never swung very far out of line. We can switch production from butter to cheese, and vice versa, to a limited degree, but the truth is that our butter surplus provinces cannot compete in the production of that commodity with New Zealand or Denmark. It is against common sense and business practice to carry over large tonnages of a perishable, like butter, from year to year.

On May 1, 1950, Canada had for the first time a carryover of nearly 20 million pounds from the old butter crop! And then we had the interesting spectacle of the federal minister of agriculture rising in the House on May 12 to declare that "we have no surpluses of either butter or cheese at the present time. To say that 20 million pounds of butter that is being held by the dairy board at the present time is a surplus of butter in this country is absolute nonsense. You could not operate in the manner in which we are operating under the board if you did not have 20 million pounds of butter."

But of course the minister had some fish of his own to fry. He was endeavoring, rather successfully too, to justify a policy whereby the government had put a floor price of 58 cents a pound under the 1949 butter crop, and will take a loss on the operation. In the end that loss may total more

than a million dollars, as it is reported that the tag end of the old crop is now being sold for 51 cents a pound.

Most Canadians will approve of the policy which the minister was trying to justify, even though they are mystified by his denial of a surplus. Certainly the support price prevented complete disorganization of the market in the face of the margarine threat, and the loss to the exchequer is not great considering that it made possible the orderly sale of a year's production of an important commodity. But after all it is only a support price to see milk producers through a period of painful adjustment. It does not shield them from the wintry wind of margarine competition. Already the minister finds it necessary to drop the support price five cents this year to discourage any increase in production, lest his 20 million pounds of surplus of May grow to unmanageable proportions.

The plain truth is that with all the devices which have been contrived to soften the blow, butter has taken a wallop from margarine, and unless the Privy Council decision alters the course of events, it is about to take another. The price support program is serving a good purpose but it does not obscure that fact.

A simple calculation with another set of figures gives the same answer. In the year 1 B.M.—Before Margarine—it took 305 million pounds of butter to satisfy Canadian consumers, and it required nearly 14 million pounds of imported butter to make up that quantity. In the year 1 A.M., farmers cut production down to a butter make of 278 million pounds. Had they not done so they would have been in worse trouble than they now are. For this amount of butter had to compete with a make of nearly 74 million pounds of margarine, or a total of 352 million pounds of spread, for imports were negligible in 1949.

Of this amount Canadian consumers bought 260 million pounds of butter and 72 million of margarine. Subtracting the domestic disappearances from the volume manufactured leaves a surplus of 18 million pounds of butter, approximately the same surplus which the minister is at such pains to deny.

Milk producers have another marketing worry besides margarine. In certain U.S. cities whole milk is now faked. The fat content is removed and replaced by vegetable oils suitably treated to escape detection by the human palate. Other new preparations are being put on the market for the manufacture of dairy by-products in which the fat content has been replaced by a cheap substitute. From such preparations ice cream is now being made which will pass for the real thing. Bakers are patronizing a product sold under the name of Kreemy-Wip, the pedigree of which no cow owner would approve. It sells for a price which is undermining whipping cream.

The food chemists have taken a leaf out of the book of the gasoline manipulators. Soft fats like the product of soy beans and sunflowers can be made into a margarine hard enough to withstand the heat of a pyromaniac's picnic in purgatory. Low-cost hydrogenated fats may enter into a whole range of food products. Margarine is only the first of a long line.



One may speculate on how the Privy Council decision will affect the situation.

If the decision of the Supreme Court is upheld, jurisdiction with respect to manufacture and sale will continue to rest with the provinces, and the validity of many other sections of the federal Dairy Industry Act will be subject to question. Parliament would then probably bring in a new Act which might include some features such as a steep increase in the tariff on vegetable oils used in the manufacture of margarine, "filled" fluid milk, filled cheese, filled evaporated milk, and other doctored products.

It could also increase the present sales tax of eight per cent payable on

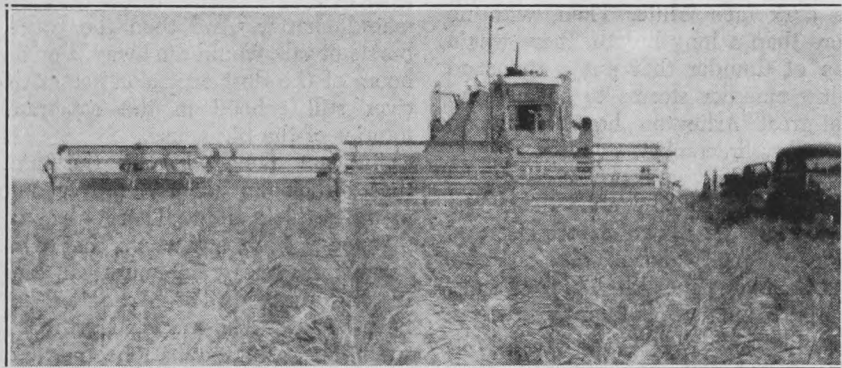
margarine and other specified products. Legislators have always shown a livelier appreciation than the general public of the importance of the dairy cow in maintaining soil fertility, and with strong support from eastern Canada might decide on really effective protection for the dairy farmer.

If the decision of the Supreme Court is reversed, the validity of the ban would be upheld. The government would then have to decide whether to enforce its old legislation or to bring in a new Act revoking the ban and extending protection to the industry in some other way. Whatever decision the Privy Council hands down, the pale, unhappy ghost of margarine will stalk the floor of the House again this coming session.

## World's Largest Combine

*The master of 20-25 acres per hour*

by WARD SKEEN



*The Fritts combine which cuts a 40-foot swath.*

IF you saw a machine that could harvest enough wheat in one hour to make 20,000 or more loaves of bread, would you believe your eyes?

Well, you might not but A. A. Fritts of LaCrosse, Kansas, has just such a machine and to make it more interesting, he built the combine himself. Fritts is a custom operator who charges by the acre so he wanted a big machine. This one cuts a forty-foot swath. An old 40x60 Red River Special separator had found its place in the fence corner. Around it Fritts built the mammoth combine. He believed that the average combine was too short and of insufficient capacity to properly separate so much grain from the chaff and straw. That is why he selected this separator with its long body.

Fritts cut down the steel wheels and mounted the separator on modern 700x16-inch airplane tires. He then put in gears to make the machine a self-propelled, four-wheel drive unit. He removed only the bundle-carrier feeder. The rest of the separator was left intact. A 100-bushel grain tank was mounted on the front left side of the machine to carry threshed grain.

A hydraulic steering gear was installed. Operating levers and controls for the front 20-foot cutting bar were placed in the cab. The rear 20-foot cutting bar is controlled by the combine man who rides on top of the machine.

The cutter bars are raised and lowered electrically. The lead bar is directly in front of the machine so that no grain is run down in splitting a field. It also eliminates the need for cutting back swaths. The second cutter bar is about five feet behind the first one, at the right of the machine. The reels are in four 10-foot sections. The cut grain is taken into the cylinder on canvas conveyors.

A 100-horsepower "Waukesha" motor is used to drive the machine over the ground. A 140-horsepower "White" motor furnishes the power to operate the threshing mechanism of the combine.

The machine is driven by V-belts wherever possible while zerk fittings are used for lubrication.

In average fields the machine travels at about five miles per hour. At this speed, in wheat that yields 20 bushels per acre, Fritts says he can harvest 20 acres per hour. In lighter crops, of course, he can increase the ground speed and cut up to 25 acres. Fuel consumption is about one gallon per acre.

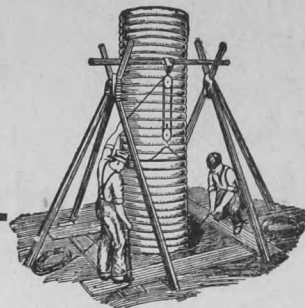
When the machine is moved along roads the cutter bars and reels are removed from the combine and placed on trailers. This permits a speed on the highway of about 25 miles per hour.

Last year Fritts harvested in Kansas and in Colorado with his huge machine. This season he is going to Texas and will follow the harvest north, perhaps as far as the Dakotas.

A miller told me that he could make a 48-pound sack of flour from a bushel of wheat. A housewife says that she can bake 50 loaves of bread from a 48-pound sack of flour; if Fritts harvests 400 bushels of wheat per hour, that represents approximately 20,000 loaves of bread which can be baked from the harvest of this machine.

Fritts purchased an old, large-size passenger bus. He modelled it into a kitchen to enable cooks to follow the machine into the fields, or drive on ahead to have a hot meal ready when the crew and the combines roll up.

A 110-volt lighting plant was installed in the bus. This with water tank, pump and sinks makes it as modern as a home.



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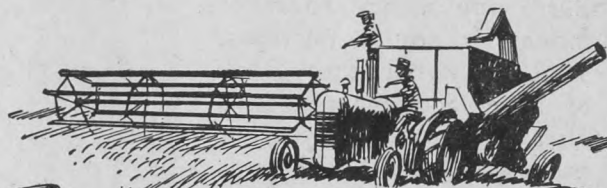
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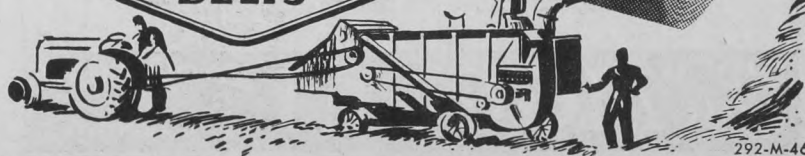
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THE BRITISH AMERICAN OIL COMPANY LIMITED



## FARM-JOB-BUILT

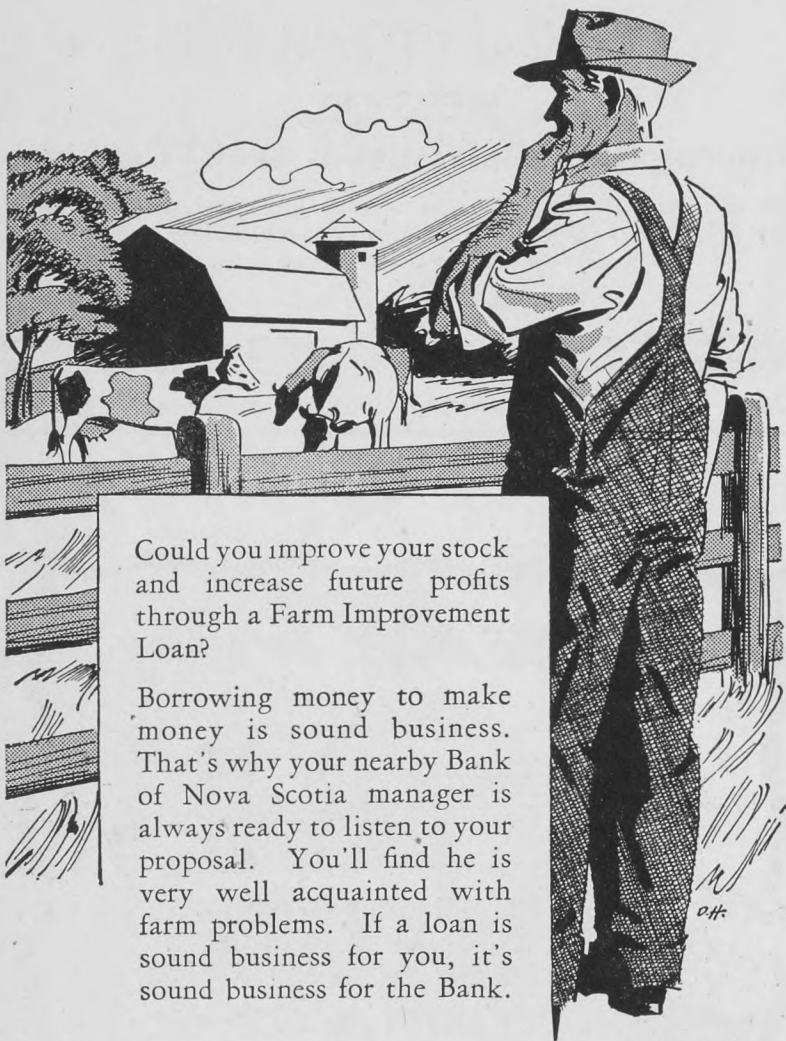
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OX-BLOOD, BLACK, AND ALL SHADES OF BROWN

3-50

**DID YOU "NUGGET" YOUR SHOES THIS MORNING?**

## Dust

Continued from page 12

elevator much like the North Central. The Arlington was a big house for those days, and in its smooth concrete it packed 2,000,000 bushels of 60 pounds apiece, a good many thousand tons of grain.

It was a big house, all right, and, as unhappy Danny Morran looked back and held it in the corner of his eye, the fading sun was bathing it in an orange glint and it appeared fine and grand. . . . But no fading sun made that dangerous reddish flash which suddenly puffed out a tiny window at the very bottom.

**D**ANNY MORRAN'S frightened hands clenched convulsively. Something was coming that would not go out of his eyes as long as he might live. And it came quickly—first, with a practice pop that wheeled the squat Joe on his thick boot heels and turned his dark face white. Then, with no more than a long breath, there was a clap of thunder that put a thousand paltry summer storms to shame—and the great Arlington house exploded like a toy firecracker.

Before the great noise and the rushing blast of air spilled them over backwards, the two North Central men saw bin walls of solid concrete shatter like paper and throw huge chunks of many tons high into the air. A brilliant sheet of flame struck once against the sky, and instantly gave way to a cone of smoke and dust, grain and concrete. And in all the mad, fantastic spray that belched from the river bank Danny saw one black thing, whirling end over end, and it was a man. Then the furied rush of air was upon them, and they went down as if an impatient genie had abruptly laid them in a bed of cinders.

There was no great harm in that. The harm was in Danny Morran's young eyes before he ever hit the ground. For once Joe Bolesy was silent. Grimly he stared at the place where an elevator had stood. A grinning skeleton of steel stood guard over the smoking mess below. The high skeleton winked in ghastly humor with the black eye of one great steel scale, a hopper holding at one draft some 80,000 pounds, hanging awry in what had been the cupola. Tumbled red boxcars lay at the foot of a devil's pile of gleaming yellow grain, and the last few geysers stuck their tongues up from the river's surface.

"Bog!" breathed Joe Bolesy, and Danny Morran shivered.

Dust explosion! South Ewing had no need to ask. Whistles screeched, and wives ran sobbing down the street.

Dust explosion. The wicked thorn that follows grain around the world. Dust explosion. The inexplicable wraith that hovers eternally in the fine mist above moving grain, until just that proper potion of air and dust is born. Then it waits slyly for the flick of a heel on a bit of metal, the casual bump of a high-speed leg bucket against a steel plate, the smoldering wickedness of a clot of waste from a bearing running hot, to furnish the simple spark to set off its terrific blast.

In five hours Mother Morran never stirred from the side of Danny Morran as he slept his wretched sleep. And never a word she said as he shook

the slumber from himself and with scared eyes trudged across the avenue and back to work.

The North Central stood, a black chunk against the night, spitting dust from her arched doors and from her flood-lighted dock, where the hungry belly of another boat drank from the bleeding spouts at her side.

Deep beyond the fatigue in the superintendent's eyes a little of their kindness still lay, and as they looked at Danny Morran's face, Mike Willits said, "It was a bad blow-up over at Arlington, son, and if you want to take a little time off I guess we can get along. In a day or two now—"

Danny's glance shifted once to the sea of cars that weaved across the North Central's yard, and he looked back into the boss's face.

"No," he said. "I got to learn to be an elevator man."

There was a difference on the roaring floor of the North Central this night. Big men were given to long silences and suddenly to curious, animated chatter. And then the fragile bursts of talk would die away. For the boom of the dust explosion across the river still echoed in the cavernous interior of the big house.

But not alone was this the thing that struck an uneasy quiver into many a thick chest. There was also the newly born awareness that what happens in one grain house can happen in another. The Arlington had been busy. And so was the North Central. The Arlington had been full of dust. And the North Central was hazy with the floating, explosion-laden grey stuff.

Knowledge that rests always latent in the elevator man came suddenly to the surface. They knew that the North Central's bearings were running hot, that the North Central's high-speed lifting buckets occasionally kicked against the side of their sheathings as they fled up and down on their endless belts, and that men were kicking their nail-studded heels here as well as at other grain elevators.

But Danny Morran brought them a measure of relief. He was more frightened than they, his mobile mouth and wide eyes more revealing than theirs. And stalwarts who were given that night to sudden bursts of inconsequential talk, sudden orgies of harsh cursing, relieved themselves by the simple process of adding to the young one's fright.

"Seven men was killed," they whispered to him. "One man was blow a hondred yards and land on top dot boat down dere—smash."

"Dey say is mebbe still more men underneath, under dot pile of stuff."

But Joe Bolesy was not among these. With grand disdain he swept the thought of dust explosions from his mind and carried on his bitter tutelage of Danny Morran. "You big foot!" he roared. "You clumpy! Watch me do dis. Now I show you how alley-vater man should do."

**T**HE dark hours rolled by, and into their black vacancy the North Central whispered her troubles, her great walls vibrating faintly with the pulse of grain running through her veins. A firefly pattern played about her switchyard as railroad men shunted their charges back and forth.

The ever-present dust floated through her open spaces, and Danny Morran sweated steadily against the unending work and numbly wondered



how it felt to be drifting through the air like a thrown stick or trapped beneath a hundred million pounds.

The scratchy flick of a bristling fibre broom spelled emptiness for another hollow boxcar, and two car partners clambered down across the iron rungs of a platform and gained the floor, a squat man and a tall, loose-jointed youth with freckles and apprehensive young eyes. They were finished with their car before the next two were, for was not Joe Bolesy the best shoveller on the river? An idle moment thrust itself pleasantly upon them before the empties might be kicked out into the hole track and fresh, fat cars spotted.

The bleary-eyed foreman noted them, and said, "Joe, run down that alley and see if everything is all right. I've got the belt shut off for a few minutes. The oilers are tired, God help them, and I know what it is to forget."

Joe Bolesy moved promptly. Perhaps somebody had forgotten at the Arlington that afternoon. It does not pay to forget in an elevator running grain. Joe Bolesy lumbered off to where the alleyway cut a tunnel down the length of the house.

Outside, in the dark shadow of the giant granary, Danny Morran found a water tap, and soaked his dusty head. The splashing water rushed down and mingled with sudden tears upon his cheeks. The splashing water endured beyond the running of his tears, and

it was a steady face he carried back upon the working floor.

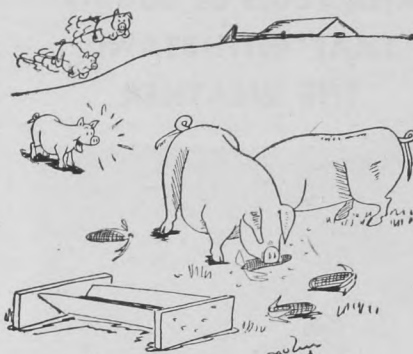
There was now a new car, full laden, in the place where the empty one had been, and Danny's crowbar thrust firmly between wood and wood. Long nails squealed, but only once. There had come to his ears a wrong sound, a familiar yet a wrong sound, and he stood and listened.

It was the hum of a conveyor belt in a narrow tunnel, barely perceptible against the background of lusty noises that filled the North Central's bowels. But Danny recognized it as the broad belt in the alleyway where Joe Bolesy had gone. And Joe Bolesy was not in sight. Joe Bolesy must be down that alley still. But that was all right. Surely no man would have suddenly thrown that long belt into motion unless first he had looked to see that no one walked along its surface in the alley.

And surely no man would be walking on its upper surface, for there was room along the side to walk, carefully. No man would, except Joe Bolesy, who had a habit of doing that very thing to give his thick body the room it needed.

Danny Morran's big feet moved unaccountably toward the entrance to the tunnel. If that belt had been set in motion while Joe Bolesy was standing on its surface he would have been jerked off his feet and flung full-length upon its suddenly speeding surface, and then—the buggies.

The buggies. Iron bowls on little rails straddling the conveyor as a low bridge straddles a rushing stream, they were made to catch grain pouring into them from a bin and drop it in a neat ribbon on the belt that flew between their legs. Joe Bolesy would never get past one of these. They hung too close to the belt itself. Instead, he would be wedged between the buggy and belt, and the moving



"Oh boy, Mom! Corn on the cob!"

surface would be smoking the solid flesh from his body.

Danny Morran reached the entrance to the alley and looked down. It seemed to stretch infinitely into the distance, dimly lighted and full of dust. The black surface of the belt rushed at him as landscape rushes by a train window. There were four buggies in the alley, four bridges straddling the moving belt—and on one

distant one a black, ugly lump appeared.

Danny shouted mightily, and hoped his thin voice would not be lost in the uproar of the North Central; then recklessly he jumped down alongside the belt and in a fast, mincing run, fled down the alley toward the far buggy.

**J**OE BOLESY was a lucky man. When the forgetful foreman had started up the belt, and the rollers had suddenly gripped it, shivering its 300 feet into sudden movement, Joe Bolesy had been flung against the nearest buggy before his body had a chance to fall. So lucky Joe was simply lying unconscious on the upper rim of an iron bowl instead of in a smoking shambles underneath. His bruised head rested easily upon the slanted inside of the buggy, his body balanced nicely on the rim, and—lucky Joe—only one leg dangled down to take its punishment from the belt.

Danny Morran was glad with all his heart to see it so. As brutal and lashing a tutor as Joe Bolesy might have been, still he was a grand elevator man, and therefore something ever to be admired. Something of Danny's gladness sickened within him as he saw the deepening gash of seared flesh that the edge of the belt was wearing into Joe Bolesy's hanging limb, but still there was much to be glad for.

Quickly he swung the inert, hanging leg clear of the vicious friction of that

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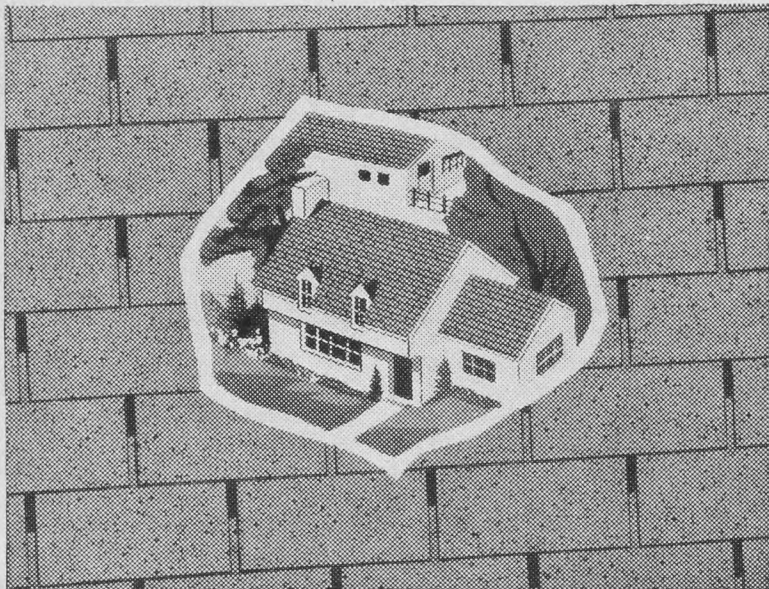






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flying edge, but he dared not lift too far. Joe Bolesy's body was heavy, and it was balanced on the narrow rim. Inside that bowl, down at the bottom, there was a hole; and the belt raced by beneath it.

Danny sobbed, and prayed that a weary foreman would shut off that deadly river of fabric which streamed by. Should he stay unmoving, balancing the squat man's body on that narrow rim until they were missed from the floor and someone came looking down the long alleyway, to see him standing there? Or should he heave and drag the unconscious man clear and lay him carefully in the narrow space of floor alongside, taking a chance that he could keep the limp form clear of the racing conveyor?

**T**HE solution came in smoke. Danny sniffed. He had taken Joe's smoking leg off the belt edge, but still there was that menacing whiff. It was stronger now. He looked down. In the dust below the spot where the other man had dangled, smoking bits of overall lay in the middle of a widening ring of smoldering dust. Danny Morran, who never would be an elevator man, felt his heart leap in his throat. A bit of fire! And just that afternoon another bit of fire had blown a man slowly, end over end, into air that whistled thunderously.

For a moment he watched, transfixed. The smoldering ring grew wider, as a pebble's waves circle in a pond. Suddenly it struck a dry little piece of wheat hull, and the little chaffy piece flared briefly. Danny heaved furiously, and Joe Bolesy was lifted bodily over the rim and hugged tight to Danny's chest. He turned sideways to the belt and let the heavy man slide down upon his knees and then upon his back. A mutely swinging arm brushed once against the flying edge and was abruptly flipped outward and onward in a curious forward signalling.

Danny Morran shivered, and quickly tucked the limp figure against the wall away from the belt. Then he turned, full to the brim with chilling fear. The dust was misty in the narrow tunnel, and the smoldering ring had reached under the belt, fanned by the drift of air along the moving surface. Had the alley air yet approached that unknown mixture, that mixture which was primed for a little lick of flame, ready to snap loose the most powerful explosive force ever dreamed of? The widening ring was prickly with little flames now. On one side they crawled against the wooden beams and picked rough splinters off with skinny fingers of fire.

For a fleeting, pregnant second, Danny Morran hesitated. He could run, run like a mad devil out that alley, leaving Joe behind. He could clear the North Central's turbulent floor, rush into the night, and perhaps get far up the cinder path before that monstrous force was touched off and, with savage fury, lifted the immeasurable weight from the low back of the little passageway and let it drop again.

Joe Bolesy would never be found. That's where elevator men were when they never found them again. They were under thousands of tons of grain and wood and iron, caught in a little cooped-up space and smeared horribly into the mass.

Danny's shirt was wet. As he tore it off, his naked young chest and back

gleamed in the dim light. He bunched the dank cloth in his hands and, measuring his red enemy with a quick, careful glance, began to fight. Lie back there, Joe Bolesy! Lie there and watch another good elevator man fight fire. Why didn't somebody shut off that belt? It brushed his shoulder as he stooped to pluck fire off the narrow floor, and a long, red mark showed across his white skin.

Desperately he plucked at the edge of the brightening ring, picked it clean from the wall, tore it up from the little bit of open floor. And now he had it cornered under the broad, whirling belt. He threw himself forward full-length to reach for it, and as his body fell a puff of dust was pinched inward toward the small remnant of flame. *Pop!* And the dust-laden air crackled in a sweep of fire! Across his naked back it swept with a million bitter teeth, and then withdrew. Danny screamed and reached under for the bright tongue that was left. His shrinking, quivering red arm reached to the last spot, and he engulfed it with a steaming bit of shirt. His arm came back, and he rolled partly over. His head turned and his mobile mouth stretched into a delirious grin.

"Joe," he whispered to the still figure stretched against the wall. "All out, Joe. No more blow-ups today, Joe. Just a little pop."

Something queer was happening over his head. The rollers on the belt were slowing down. Well, it was about time somebody was shutting off that belt, because he was going to go to sleep, going to go to sleep so that wickedness across his back wouldn't make him quiver so. . . .

Somebody had washed his face. He started to get up, but there was a binding across his back and a bitter pain. He lay back instead and gently turned his head. Joe Bolesy sat in a chair, grinning under a white thing that slanted across his dark face. His leg stuck out in front, and it, too, was wrapped in white. They were in the locker-room, under Mike Willits' office.

**J**OE was grinning at him. He must be, because he was looking straight into his eyes.

Mike Willits' voice sounded at his ear. "A good boy, Danny," he was saying.

Danny Morran's face lengthened. "Boy"—the word fell upon him with crushing disappointment.

Joe Bolesy was grinning at him still. "Yah," he grinned, "but dot boy he nefer will get be alleyvater man. Nefer."

Danny felt hot anger rise within him. Then it subsided. Joe didn't mean it any more. He didn't mean it, because he was grinning still, and looking at him in an admiring sort of way. He would have to tell Mom about the way Joe was grinning admirably, because tough Joe was the best shoveller on the river.

"Certainly he won't," Mike Willits said gently. "Because he is one now—the best one the North Central has ever seen."

There was a promise in his voice, a promise of man's pay for the Morran family for a long, long time.

Joe Bolesy was nodding his head vigorously. "You bet it," he added emphatically. "I teached him."

Danny smiled happily and closed his eyes. That white thing on Joe's bobbing, grinning head was beginning to blur a little bit.



# The Countrywoman

**S**ASKATCHEWAN Homemakers selected the theme: "The soil of today is the hope of tomorrow" for their provincial meeting. Like a bright thread in a tapestry, it appeared and reappeared throughout the busy sessions lasting for four days. It was the text for special talks, tied in with committee convener reports and featured in educational films. It served to give design and significance to the Fortieth Annual Convention of Homemakers, held in Saskatoon during the second week of June. Some 250 delegates were in attendance and will carry that theme back to local clubs, when they give their convention reports.

Are women interested in such topics as soil types, agricultural production, wind and water erosion of soil? Much depends, of course, upon who is doing the talking and much depends upon the audience's appreciation of the fact that in a province, predominately agricultural, almost everyone in it is affected by the prosperity or poverty of farming. It is a good experience to hear and see Saskatchewan University staff members in action talking to the people of their home province. Many have attained several degrees in some branch of science. They are keen on their chosen subject. They have had considerable experience in talking to farm groups and men in business largely dependent on agriculture. They have mastered the art of simplifying scientific information. They present it in an easy informal way.

Dr. E. V. Graham, dean of agriculture, in his welcoming address pointed out that the world's population is increasing rapidly, at a net gain of 55,000 people a day. Each succeeding year sees heavier demands on available food supplies. In Canada we are not as yet fully conscious of the world's food needs but in European and Asiatic countries there is an acute consciousness of present and future food needs. Dr. J. Mitchell, head of the department of soils, gave an evening talk on "Let's Look At Our Land," quoting figures to show that the population of the world has increased five times in 300 years and doubled in the last 100 years. By means of a large wall map, shaded to show the various soil type areas, he brought home to his listeners the relation of soil fertility and proper farming methods. He pointed out that Saskatchewan's cultivated acreage is approaching 36 million out of a total of about 90 million for the whole of Canada. He mentioned two books: *Road to Survival* and *This Plundered Planet* being almost as popular as fiction.

Since the last annual meeting Saskatchewan Homemakers and the university staff have said "farewell" to Miss Bertha Oxner, who had served as Director of Women's Work for 19 years. There were many fine tributes paid to the work of Miss Oxner, now retired and living at Chester, Nova Scotia. Homemakers throughout the province had contributed individually to a gift fund, which is to be forwarded to Miss Oxner, with the invitation extended for her to be one of Saskatchewan representatives at the meeting of the Associated Country Women of the World meeting in Copenhagen, Denmark during September of this year.

**T**HERE has been reorganization of staff and Miss Alice Stevens, a graduate of Manitoba University in Home Economics, was appointed Assistant Director of Extension Department, in charge of women's work, under John Raynor, Director. Dean Graham announced on the opening day that Miss Stevens had been given the status of Associate Professor. Miss Stevens' report showed that there are now 336 Homemakers' Clubs with a membership of 5,331. Life memberships have been presented to 20 Homemakers. Annual reports from clubs showed donations of over \$40,000 with community activities receiving about half that amount. Local hospitals head the list with rinks, playgrounds and equipment, community halls and young folks also receiving generous assistance.

Homemakers have sent representatives to meetings of the Provincial Council of Women, to two

**Saskatchewan Homemakers regard the land on which they live, reflect numerous activities of local clubs and take interest in national and international affiliation**

by AMY J. ROE

education conferences to an Ottawa meeting of the Canadian Association of Consumers, to the opening of the Legislature, to opening of the McNeill Clinic and to the Co-operative Farm Conference. Reports show 1,131 Homemakers listen to Farm Radio Forum, while 103 are active forum members. During the last winter Saskatchewan had 142 radio listening groups—the second highest among the provinces of Canada. A project undertaken two years ago to furnish a room for the Blind Home in Saskatoon at a cost of \$300 is now almost



**Officers for 1950 (left to right): Mrs. W. A. Thomson, Pense, second vice-president; Mrs. T. H. Entwistle, Parkman, first vice-president, and Mrs. J. W. Adams, Ethelton, president.**

completed. Blackey and Strathmore districts had made individual contributions to the Canadian National Institute for the Blind. A Homemakers prize for general proficiency in first year Household Science had been awarded to Miss Kathleen Bergman of Yorkton.

Donations to provincial and Dominion projects included many dealing with health and the prevention of disease. The total amounted to \$14,865.29, with more than \$5,000 given to assist the fight against cancer. Others sharing were the Red Cross, anti-tuberculosis work and C.N.I.B. Overseas parcels and assistance for children had amounted to nearly \$4,000. During May, Homemakers' Clubs were active in raising money for the Manitoba Flood Relief Fund.

An active part had been taken in assisting with projects for young people sponsored by the University of Saskatchewan. Some had sent local girls to the University to attend Girls' Club Week. Others had sponsored teams of boys and girls at farm camps at Class "A" and "B" fairs last year and are now working on similar plans for 1950. Short courses for rural young women were sponsored by three clubs and already applications are in for further courses next winter. Financial assistance has been given to students attending residence co-educational schools at Kenosee, North Battleford and Prince Albert. It is hoped to have another such school at Moose Jaw in the near future.

Last year Saskatchewan was the meeting place of the Biennial Conference of the Federation of Women's Institutes of Canada. The officers and many of the delegates had the privilege of meeting W.I. workers from other provinces and hearing Mrs. Raymond Sayre, President of A.C.W.W. The aims and purpose of the international rural women's organization had been brought close to Saskatchewan Homemakers. A travel fund had been started at the 1949 convention, members being asked to contribute 25 cents each. Mrs. J. W. Adams was named to represent the Homemakers. In addition to Mrs. Adams and Miss Bertha Oxner, three others: Mrs. Violet McNaughton, Mrs. P. Collier, past president and a life member, and Mrs. George Iverson are expected to attend the Copenhagen meeting and carry five Saskatchewan votes. In December last, a request had come for material for the A.C.W.W. Cook Book representing 20 traditional recipes. Mrs. W. A. Thomson of Pense, assisted by the Nutrition Division of the provincial department of health had prepared the material and sent it off as it had to be in London by April 1.

In the essay contest "A Countrywoman's Day," there had been 59 entries from Saskatchewan from 24 of the 26 districts. The three top essays were entered by Rosedale Homemakers at Silver Park; Moose Plains at Nipawin and Richard Homemakers. Much favorable publicity was given by press and radio. At present the leading essays are in London, ready for display at Copenhagen. The others are on loan to the National Film Board, Ottawa. The Million Member Fund "Pennies for Friendship" which helps finance the A.C.W.W. is collected from the clubs at district conventions and forwarded as donations from the districts.

Mrs. E. E. Morton, president of the Federated Women's Institutes of Canada was a special guest of the convention. She traced the history and growth of the W.I. movement which now has some 90,000 members. It is hoped that Newfoundland's Jubilee Guild and the Quebec rural women's organization will shortly unite with the F.W.I.C. A brief covering the history and development of W.I. movement had been forwarded to the Massey Commission. The Commissioner had expressed interest in securing a list of all clubs in Canada which had prepared a local history of their community. Officials in the Department of Immigration and Citizenship had expressed appreciation of the help given by W.I. members across Canada in "reaching out the hand of friendship to newcomers who have made their home in this country."

**I**N line with these ideas of national and international topics, one contributed by Mrs. A. L. Caldwell of Saskatoon in bringing greetings from the Council of Women is worthy of mention. Five Saskatoon women had made an extended study of the Charter of Human Rights and had presented a speakers' panel on the subject. Mimeograph copies have been made and can be secured at a cost of 25 cents by writing to her at 807 University Drive.

The committee convener reports were ably handled and represented much study and preparation. Copies of these reports are sent out to clubs and no doubt will form the basis of study for the coming year. These included reports on: Agriculture by Mrs. S. M. Dryden, Tuffnell; Public Health by Mrs. B. B. Scott, Horizon; Arts and Literature by Mrs. R. J. Norman, Paddockwood; Education by Mrs. W. J. Harris, Kenaston; Affiliations by Mrs. Eric Given, Prince Albert; International Relations by Mrs. H. L. Voice, Bradwell; Legislation by Mrs. G. Bennett, Simmie; Home Economics by Mrs. A. Harder, Fairholm; and Mrs. W. A. Thomson, Pense.

Mrs. J. W. Adams in her presidential message stressed the theme of the convention and made a strong plea for conservation of the soil resources. She was elected president of Saskatchewan Homemakers for another term. Other officers are: first vice-president, Mrs. T. H. Entwistle, Parkman; second vice-president, Mrs. W. A. Thomson, Pense; corresponding secretary, Mrs. C. Allin, Flaxcomb.



# Using The Pressure Canner



*For flavor, appearance and keeping qualities, the modern housewife uses a pressure canner.*

**E**ACH year more and more women are discovering the advantages of the pressure canner. Not only is the processing time cut in half, but if the canner is used as directed, chances of spoilage in pressure canned foods are negligible.

To understand how the canner operates is not difficult. Fundamentally its purpose is to process foods by heating them to a temperature well above the temperature of boiling water. In an ordinary cooking kettle the steam which escapes from the boiling water uses up the excess heat as it turns into a vapor, and so the water remains at boiling point or 212° F. This, then, is the highest temperature that the canned food can attain in the boiling water bath. However, a temperature of 240° to 250° F. is required for the processing of low-acid foods if they are to be guaranteed to keep until used.

In order to reach this high temperature the pressure cooker utilizes steam under pressure. First, some of the water in the cooker is changed into steam which drives the air from the cooker, through the control valve or petcock in the cover. When the air is driven out—or exhausted, as the manufacturers term it—this outlet is closed and the steam is bottled up within. The steam creates so much pressure as it tries to escape, that at last no more water can vaporize. The extra heat is then used to raise the temperature of the contents of the canner. By the time the pressure is up to ten or 15 pounds the temperature of the contents will have risen to 240 or 250° F. This higher temperature is essential for destroying all the bacterial organisms in low-acid foods.

Processing under pressure is not necessary for the acid foods. In fact, some authorities on canning do not advise sterilizing fruits and tomatoes in a pressure canner. The high temperature, they say, has a tendency to break down the more delicate tissues of these products. If you wish to process fruit in the pressure canner, it may be advisable to leave the control valve open; or, if preferred, operate the canner as usual but keep the pressure down to zero or one pound of steam pressure. Use the processing time recommended for the boiling water bath, and at the end of the processing time let the gauge return to zero, leave it five minutes more and then remove the jars.

**C**ANNING is only one way of preserving food for use the year round, but it is one of the most simple ways. It doesn't require much time or extra equipment; the color, flavor, texture and shape of the food is retained fairly well or changed to some other acceptable form; and waste due to spoilage is very small. The greatest enemies of canned food, as with other foods in storage, are the spoilage organisms—enzymes, molds, yeasts and bacteria. Three of them—enzymes, yeast and molds are easily destroyed in canning by the heat during processing. The bacteria, however, are more difficult to destroy; in fact it may take a temperature up to 240 or 250° F. to kill them all. This is the main object in using the pressure canner. It can attain this temperature, hence there is no danger of food spoiling when canned in the pressure canner.

In the presence of an acid all bacteria can be destroyed by boiling

*To get the best results from the use of a pressure canner you should understand the principles on which it works and the proper method of applying them*

by LILLIAN VIGRASS

water temperatures. For this reason the acid foods, that is the foods which contain a large amount of acid, can be safely canned by the boiling water bath method. These acid foods are, in general, all fruits and pickles, tomatoes and sauerkraut. The foods which are low in acid content, however, require a much higher temperature than boiling point to assure bacterial destruction. Hence vegetables, meats, fish and poultry are best processed under pressure.

The operation of the pressure canner is very simple. By reading carefully, then following exactly, the directions in the manufacturer's booklet, one can be sure of success. If one understands the principles of pressure canning and follows the instructions for its use there is no need to be afraid of the pressure canner. If the canner is opened before the pressure has returned to normal however, the steam may cause a bad burn as it rushes out. Remember, it is a safe piece of equipment properly used. Do not, however, under any circumstances, force the cover off the canner, but wait until there is no pressure in the canner before removing the lid.

five minutes before opening the canner. In any event the canner should not be opened in less than 20 to 25 minutes after the end of the process period. If the cooling is more rapid than this the canner should be left on a warm portion of the stove for part of the cooling period.

A loose or partial seal may also cause the liquid to boil out of the sealers during processing. Do not pack the food in the sealers too solidly. Leave a one-half inch headspace for fruit and most vegetables; and leave a full inch for corn, peas, meat, poultry and fish. When filling the jars, the metal band is screwed down tightly then turned back a quarter turn only. Immediately after processing screw the bands down tightly to complete the seal. Place the jars to cool, setting them well apart to allow for free circulation of air. Under no circumstances should the jars be inverted while cooling or when stored. To test if they are airtight tap the jar with a knife or pencil. A clear ringing sound indicates a satisfactory seal.

If the housewife wishes to can only a few pints at one time, or if she hasn't a pressure canner, and wishes to can meats or other low-acid foods, the ordinary pressure saucepan can serve very well as a canner. In fact, experiments with pressure saucepans have shown that they will process low acid food as quickly and just as satisfactorily as the larger home canners. A method has been developed in which the heat required for sterilization will be supplied and yet the food will not be overcooked. If the saucepan is the type which has a limit of ten pounds pressure, then only vegetables can be processed in it. But if it can also attain a pressure of 15 pounds of steam pressure, meats may be processed in it also. A four-quart pressure saucepan will process four

**T**HE loss of liquid from glass jars during processing has long been a problem. In pressure canning this difficulty can be almost entirely overcome, if care is exercised in the use of the cooker. The loss may be caused by fluctuating pressure during processing or by too quick cooling of the canner afterwards. To keep this loss at a minimum keep a constant even pressure, during the processing period. When the processing time is over, remove the canner from the heat and let the canner cool naturally. Do not open the vent until the pressure has returned to zero, then open the vent or petcock and allow another



*Jars labelled to show name, processing time and date.*



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pints at a time. Use one quart of water in the saucepan.

The heating cycle takes place in a shorter time in the saucepan than in the canner. It heats more rapidly and so a longer time is needed for cooling to balance the longer warming-up period of the large canner. This method just developed calls for a definite "cooling time" before the jars are removed from the saucepan. The additional time is approximately equal to the difference in "come-up time" between the saucepan and the large canner. The longer cooling time in the saucepan thus equalizes the sterilizing effectiveness of the two procedures. The "cooling time" is equal to the actual length of time required to reduce pressure in the saucepan, plus the additional time required to reduce all the pressure in the jars themselves. This is 20 minutes longer than that of the pressure canner, or a total of from 40 to 45 minutes from the time the cooker is removed from the heat until the lid is removed from the cooker.

Thus the faster warming-up time in the saucepan is compensated for by the longer cooling period making the over-all process time equal to that in the canner. This method eliminates the need for testing or nudging the weight to see if the pressure is exhausted. It also eliminates the possibility of dropping the pressure too abruptly and thereby losing liquid from the jars.

### Steak Strips De Luxe!

NOW is the time when folks are thinking about eating out of doors, of picnics, and—most intriguing of all—steak fries. It seems to me that just about everyone likes a steak fry—particularly the men. Others may have filet mignon served on their best company china and garnished with watercress or its more homely (but just as good) cousin, parsley . . . but not me! It can't hold a candle to well-browned steak-strips fairly oozing with flavorful juices, dripping with butter, placed between two halves of wiener rolls, and eaten near a singing brook in the woods!

Cut steak (any cut you want and can afford) into strips about two inches wide and four inches long, so that they will fit generously in the long rolls. Any good-natured butcher will cut them for you but you can be your own butcher with a strong, sharp knife. Pound the strips with the edge of a plate. Then weave each one on the fork of a long toasting stick, or sharp-pointed stick, and hold over a well-banked fire until the meat is exactly the shade of brown and degree of "done-ness" you prefer.

Have ready a container of melted butter—a tin can such as fruit comes in is satisfactory—and plunge the cooked steak-strip into it for a second, hold over the can to allow the excess fat to drip off and then place between the roll halves. Cover with sliced or finely minced onion, or relish, place the roll-lid in place and sink your teeth into the best possible delicacy.

If your land happens to produce field mushrooms that you are positive are mushrooms, here is a royal finish for your steak-strips. Wash and chop mushrooms, saute in butter, and at that strategic moment when you can hardly wait to taste the steak-strip, cover it with the cooked mushrooms in place of other oddments mentioned above . . . and float to epicure's paradise!—Louise Price Bell.

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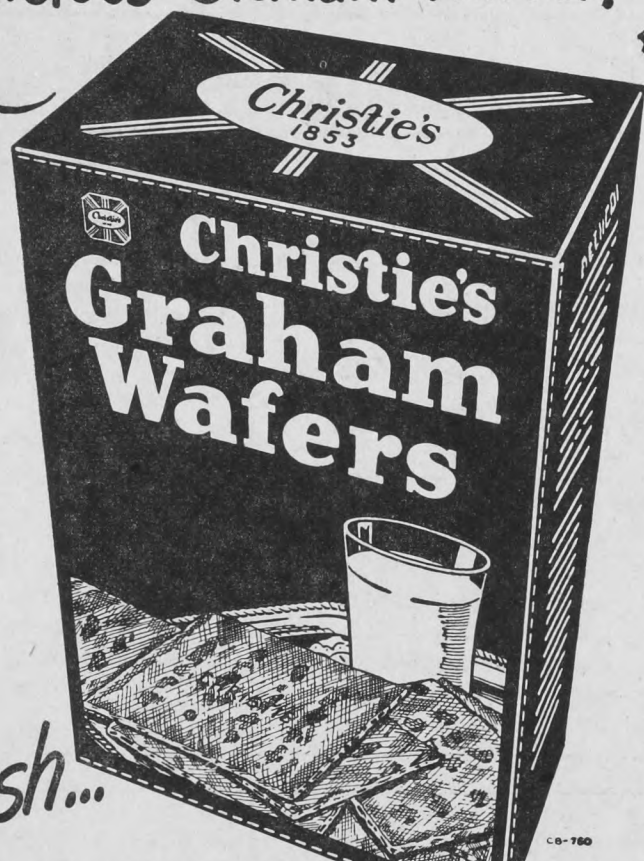


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Coffee Jelly with lemon sauce makes a delightful summer dessert.

To unmold jellies, set the mold in a pan of warm (not hot) water for not more than thirty seconds. Run the point of a knife around the top to loosen the jelly from the edge of the mold. Invert the mold slowly and place it in the center of the serving dish. If the jelly sticks, return the mold to warm water for a few seconds.

#### Lemon Jelly

1 T. gelatine  
2/3 c. cold water  
1/3 c. lemon juice  
1/2 c. sugar  
1 c. water

Put the gelatine in the bottom of the double boiler, pour in the cold water. Let stand at room temperature five to 10 minutes. Add sugar. Stir over boiling water until

the gelatine has dissolved. Remove from stove. Add remainder of water and lemon juice.

#### Orange Jelly

1 T. gelatine 1 1/4 c. orange juice  
1/2 c. cold water 1/2 c. sugar  
1/4 c. lemon juice

Follow the method for lemon jelly.

#### Coffee Jelly

1 T. gelatine 1/4 c. sugar  
1/2 c. cold water 1 1/2 c. strong coffee

Follow lemon jelly method.

#### Prune Jelly

1 T. gelatine 1/4 c. lemon juice  
1/2 c. cold water 1/4 c. quartered,  
1/3 c. sugar stewed prunes  
1 c. prune juice

Prepare as for lemon jelly; add prunes when jelly is consistency of unbeaten egg white.

#### Potpourri Jelly

Add 1/2 c. chopped raisins and 1/4 c. walnuts broken in pieces to lemon jelly after it has begun to thicken.

#### South Sea Jelly

Add 2 sliced bananas and 1/4 c. shredded coconut to lemon jelly after it has begun to thicken.

#### Rhubarb Jelly

1 T. granulated 1 c. sugar  
gelatine 2 T. lemon juice  
1 lb. rhubarb Grated rind of  
1/2 c. boiling water 1 lemon  
1/2 c. cold water

Soak the gelatine in cold water for five minutes. Cut the rhubarb into one-inch pieces, add the sugar and the boiling water. Bring the mixture to the boiling point and let boil for 15 minutes. Add the soaked gelatine, the lemon juice and the grated rind. Turn into a wetted glass mold, chill and serve with whipped cream.

#### Fresh Strawberry Whip

1 c. washed, hulled and halved strawberries  
1 1/2 c. water or fruit juice  
1 pkg. strawberry-flavored jelly powder  
1 egg white

Sprinkle the strawberries with a little sugar and allow to stand at room temperature for 15 to 20 minutes. Drain off juice and add water to make 1 1/2 c. liquid, heat and add to jelly powder. Stir until dissolved, cool and chill until it begins to thicken. Beat the egg white in a small bowl until stiff. Place the

JELLIED salads and desserts add a note of coolness and color, a tart flavor and interesting form to summer meals. They may be as simple and economical as you wish, or as elaborate. Prepared in the cool of the morning, then set aside to chill, they are ready to serve any time of day. Plan to use them, however, within the next 24 hours for the best in flavor and for crisper jellied fruits and vegetables.

In preparing jellies there is a choice between using prepared jelly powders and plain granulated gelatine. The prepared jellies are convenient and wholesome products, although they are not the equivalent in food value of jellies made from fruit or vegetable juices. The flavor of these prepared powders may be improved by using juices in place of part or all of the water in the recipe, and by molding fruits and vegetables in the gelatine mixture. Each package is accompanied by carefully worked-out directions and recipes.

The prepared powders are made in only a limited range of flavors, so cannot replace gelatine for all purposes. Plain gelatine adds no flavor, only a definite shape to the chilled foods. A greater variation, of salads in particular, is available with the plain gelatine. The jelly base need not be made as sweet for salads as that made of prepared gelatine. Use your imagination as you work; include the leftovers and add anything else you fancy to achieve interesting color and flavor combinations.

Gelatine may be chilled in serving dishes and served without unmolding. If the jelly is to be molded, however, individual molds are easier to handle than the larger ones. Some interesting shapes can be attained by using cups or glasses, jelly glasses, custard dishes, muffin tins, or mixing or serving bowls. They must be perfectly clean. Rinse them with cold water and do not wipe them dry before filling with the gelatine mixture. The jelling time ranges from two to four hours, depending on the mixture, the size and material of the mold, and the chilling temperature.





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strawberries in a large bowl and beat until they form a puree. Add the partially thickened jelly mixture and whip until very light and fluffy. Fold in beaten egg whites gently. Chill and serve with whipped cream.

### Orange Bavarian Cream

- |                   |                    |
|-------------------|--------------------|
| 1 T. gelatine     | 1 T. lemon juice   |
| ½ c. cold water   | 2/3 c. heavy cream |
| ½ c. sugar        |                    |
| 1 c. orange juice |                    |

Put the gelatine in the top of the double boiler. Pour in the cold water and let stand at room temperature for five to 10 minutes. Stir over boiling water until the sugar and gelatine have dissolved. Remove from the stove, add the fruit juices. Set the top of the double boiler in a pan of very cold water until the jelly is the consistency of unbeaten egg white. With a rotary egg beater, beat the jelly until light and the cream until stiff. Fold the jelly into the cream. Mold. Serve with whole sections of orange which have been sprinkled with sugar and left to stand until the sugar has dissolved.

### Raspberry-Strawberry Cream

Substitute crushed berries for the orange juice in Orange Bavarian Cream. Garnish with whipped cream and large, whole berries.

### Apricot or Prune Cream

- |  |  |
|--|--|
| 8 medium prunes<br>stewed, or 12<br>apricot halves | ½ c. sugar<br>3 T. lemon juice<br>2/3 c. fruit juice |
| 1 T. gelatine                                      | 2/3 c. heavy cream                                   |
| ½ c. cold water                                    |  |

Use method for Orange Bavarian, placing ½ prune or apricot in the bottom of individual molds and chopping remainder of fruit and add with the fruit juice. Serve with whipped cream.

### Coffee Bavarian Cream

- |                  |                    |
|------------------|--------------------|
| 1 T. gelatine    | ½ tsp. vanilla     |
| ½ c. cold water  | 1/3 c. heavy cream |
| ¼ c. sugar       |                    |
| 1¼ c. hot coffee |                    |

Follow method for Orange Bavarian Cream.

### Spanish Cream

- |                               |                 |
|-------------------------------|-----------------|
| 2 tsp. gelatine               | ¼ c. sugar      |
| ¼ c. cold milk                | Few grains salt |
| 1-1/3 c. rich milk<br>scalded | ½ tsp. vanilla  |
| 2 egg yolks                   | 2 egg whites    |

Put the gelatine in a small bowl, add cold milk. Let stand five minutes. Make a soft custard of the scalded milk, egg yolks, sugar and salt. Dissolve the soaked gelatine in the hot custard. Remove from stove, add vanilla. Set the top of the double boiler in a pan of very cold water until the mixture is the consistency of an unbeaten egg white. Beat the egg whites until stiff and the jelly until light. Mold. Serve with whipped cream, plain cream or fruit.

### Coffee Spanish Cream

Follow the recipe for Spanish Cream, replacing the scalded milk with freshly made, strong, black coffee.

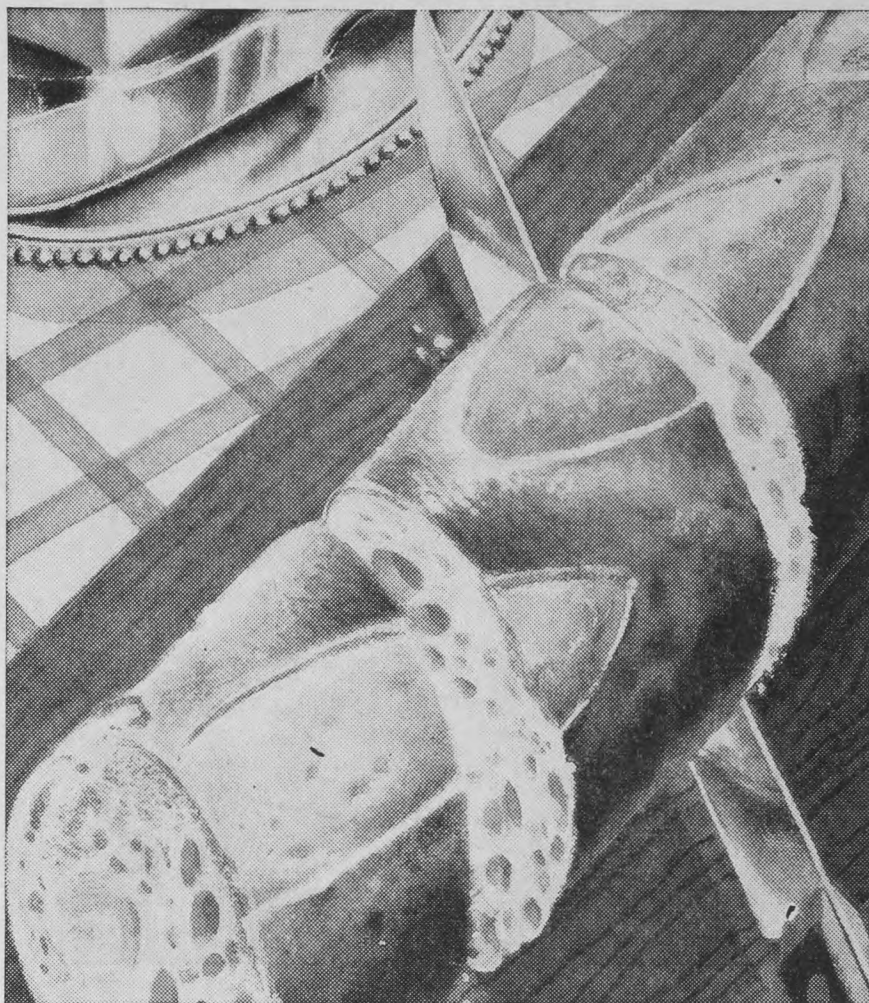
### Perfection Salad

- |                      |                           |
|----------------------|---------------------------|
| 1 T. gelatine        | 2 tsp. vinegar            |
| 1/3 c. cold water    | ½ c. chopped celery       |
| 2/3 c. boiling water | 1 T. chopped green pepper |
| ¼ c. sugar           | 1 T. chopped pimento      |
| 1/3 c. lemon juice   |                           |
| ½ c. minced cabbage  |                           |

Mix the cold water with the gelatine, let stand five minutes. Dissolve the gelatine mixture and sugar in the boiling water, add lemon juice and vinegar. Chill to the consistency of an unbeaten egg white, stir in the vegetables. Turn into individual molds or a shallow pan. Chill until firm. Serve on a bed of lettuce leaves with mayonnaise dressing. (Note: ½ package prepared lemon gelatine, dissolved in 1 c. hot water may be used as a substitute for gelatine, sugar, lemon juice and water.)

# Surprise! Treat!

## REAL FRENCH BREAD



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### FRENCH BREAD

(makes 3 loaves)

#### Scald

- ½ cup milk
- ¾ cup water
- 1 tablespoon granulated sugar
- 2 teaspoons salt
- 2 tablespoons shortening

Remove from heat and cool to lukewarm. Meanwhile, measure into a large bowl

- ½ cup lukewarm water
- 1 teaspoon granulated sugar

and stir until sugar is dissolved. Sprinkle with contents of

- 1 envelope Fleischmann's Royal Fast Rising Dry Yeast

Let stand 10 minutes, THEN stir well; stir in lukewarm milk mixture. Measure into a large mixing bowl

- 4½ cups once-sifted bread flour

Make a well in the centre and add liquids all at once. Mix thoroughly, then knead slightly in the bowl. Cover with a damp cloth and set in a warm place, free from draught; let rise until doubled in bulk. Punch down dough, cover with damp cloth and again let rise until doubled in bulk. Turn out on lightly-floured board and divide into 3 equal portions. Knead each piece lightly and shape into a slim loaf

about 12 inches long. Place, well apart, on greased cookie sheets and with a pair of scissors, cut diagonal slashes in top of loaves, about 1½ inches apart. Let rise, uncovered, until doubled in bulk. Bake in a hot oven, 400°, for 15 minutes, then reduce oven heat to 350°, bake 15 minutes, brush with a mixture of 1 slightly-beaten egg white and 2 tablespoons water and bake until loaves are cooked—about 20 minutes longer. Cool bread in a draught, by an open window.





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## SALMON LOAF

- 1 lb. can Red Rose Keta Salmon
- 2 eggs
- 2 cups bread crumbs

- Salt and pepper
- 1 cup liquid (salmon liquid and water)
- 2 tbsp. fat

Flake salmon; mix with crumbs and seasoning; and add beaten egg and liquid and shape into a loaf. Put into a well greased pan and bake 20-30 minutes in a moderate oven.



F2-50

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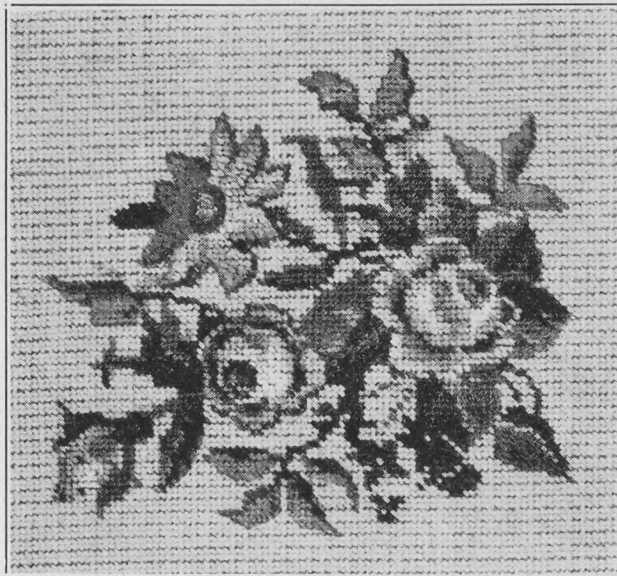
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## For Summer Working

*Dainty needlework ideas for summer occupation*

by FLORENCE WEBB

### "Rose" Petite Point Picture



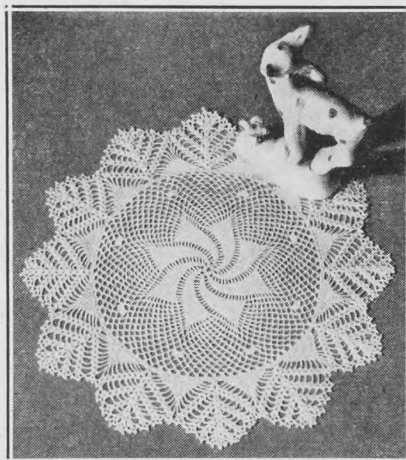
Design No. S-115.

An easy-to-follow, new-style chart tells you exactly where to place your stitches and colors to duplicate this very handsome petite point picture. If you wish, you may have it framed, or it can be used on an evening purse or in a circle on the center of a round, puffy silk cushion. We send you the chart, the pure-silk canvas on

which the design is worked and the threads. Price complete \$2.00.

### Baby's Knit Jacket and Booties

Just in time for summer and the warm days ahead. So easy to slip on over nighty or dress for the cooler evenings. Light yet warm and easy to launder too. It looks like crochet but actually it is knitted in a simple, effective and interesting stitch. Quickly made and instructions are easy to follow. Design is No. K-103. Price 25 cents.



Design No. C-343.

### Pineapple Motif Doily

If it's a "Pineapple" motif it's popular and this one is unusual too. The swirl center gives it an added interest. We think this design will make a nice addition to your collection and if you are a beginner, you will find the pattern very easy to follow. Design is No. C-343. Price 20 cents.

Address orders for needlework to The Country Guide Needlework, Winnipeg, Man.




Design No. K-103.

### Breezy Flower Apron

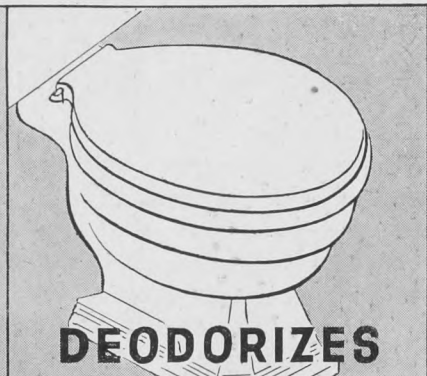
Design No. 824.

Protect your light summer dresses with this practical and gay apron, with its wind-blown flowers embroidered in soft pastels. It is generously cut and stamped flat on fine-quality white linene. Design is No. 824. Price 80 cents. Threads are 20 cents extra.

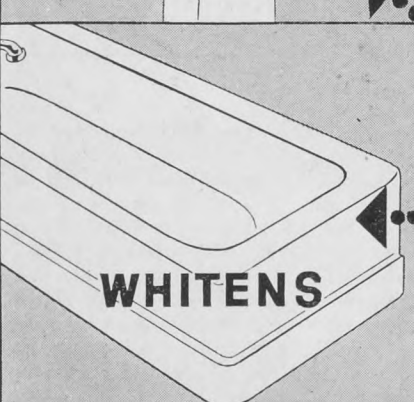





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## Short of Water

Make the best of available supplies

by MARGARET M. SPEECHLY

SO many people on the western plains are short of water at some time during the year no matter how well they plan. This complicates laundering and adds greatly to the burden of washday. If your water supply is limited, the following suggestions will help you to make the best use of it.

In the first place, when buying colored fabrics choose only those guaranteed to be tub-fast. They may cost a bit more than poorly dyed materials but they are a definite economy because they do not color the wash water, or stain any article they touch, and there is no loose dye to rub off on underclothing.

If you suspect that a garment might lose color in the first wash, put it in a pail of cold water as a precaution. Keep rinsing until the water is clear (hard will do for this). Besides protecting the rest of the wash, this treatment gets rid of dressing sometimes found in new cottons. Unless removed first, dressing may cause the suds to die down.

Do not waste time and effort trying to "set" fugitive colors with salt or vinegar or other substances. Scientists have proved that such treatment is of no real use in the prevention of "bleeding."

For garments that are frequently in the wash it pays to choose materials that give up soil readily. Smooth fabrics do not pick up and hold dirt like rough surfaces. Plain weaves come clean more easily than fancy weaves. Knitted cottons for jerseys and underthings are no trouble to wash. Rayon and nylon yarns are so smooth that soil seems to drop off garments made from them.

Plastic bibs, table covers and aprons reduce the size of the wash which in turn helps out the water supply. Paper handkerchiefs are a boon provided they do not find their way to the washer where they will spoil the water. Keep garments from becoming over-soiled, as it is liable to require more than one suds to dislodge obstinate dirt.

As you sort the laundry, get rid of loose dirt by shaking each article. Empty pockets, brush out the particles that have collected, turn down cuffs of slacks and play clothes, give special attention to work shirts and socks, particularly in dusty weather. Use the whisk for removing the rolls of fluff that collect in new wool underwear. These things are well worth doing at any time but especially when water is scarce.

Does your washer take too large a share of the available water? When buying one, new or second hand, find out how many gallons are necessary for efficient operation. Even though you put out a huge wash every week, you will manage the water problem more easily if the machine is standard rather than out-size.

Every family has special tricks for making the water go as far as possible. Check over your plan to see if it is economical in every respect. Try to spare water for a lukewarm presoak because it prevents considerable loose dirt from reaching the washer.

Do your utmost to allow for at least two rinses, since rinsing is a very important part of the washing process. The color and brightness of the clothes depend on the removal of every bit of suds during rinsing. If you have to choose between the presoak and an extra rinse, skip the presoak.

Recent experiments conducted over a period of many weeks by scientists, have shown that the color of laundered clothes suffers if rinsing is dispensed with. Regular family washes were used for tests and the results proved that two rinses are better than one.

You will be able to use rinse water to better advantage if you use a plunger for drawing it through and through the meshes of the fabrics. This tool is cheap and does the work far more efficiently than your hands. Remember that hot water removes suds more thoroughly than cold, so if your supply of water is limited, make the first rinse hot.

As you transfer each load from one tub to the next, make good use of the wringer. By using the right tension and by feeding the rollers evenly you leave most of the suds in the machine where it belongs and the rinses remain clear for longer.

AFTER the final rinse, try putting each piece through the wringer a second time. You will be surprised at how much water can be removed in this way. Why take extra weight to the lines when it can be left in the tub?

To eke out the available rain water, many women rely on the dugout or the well for rinsing purposes. If the water is clear and soft this is a good plan, but if it is hard it must be softened first to prevent soap curds from forming. Softening can be skipped if soapless detergents are used in the wash water. When rain water has a yellow tinge, well water may be much more satisfactory for rinsing.

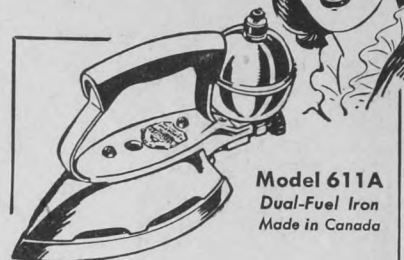
Actually, none of these suggestions solves the main problem of getting sufficient water for laundering purposes. Until you possess a water system you can have no idea how greatly it simplifies the toil of washday. The only way to get one is to start planning for plumbing now, without delay. Write to the extension service in your province for bulletins and information about installing a water system.

Why are manufacturers not required to show the weight, when packed, on the outside containers of soap flakes and detergents, and also on wrappers of, or stamped into unwrapped cakes of soap? This is a question which is asked in the summer letter of the Canadian Association of Consumers.

It was one which was asked by delegates at the June meeting of Saskatchewan Homemakers. They dealt with it in a resolution asking the C.A.C. to make representation to have the weight and description "soap" or "detergent" on packages. The C.A.C. has been conducting an extensive survey on the subject and hopes soon to publish findings.

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# Summer Favorites



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No. 707—Trim and slim, this easy-on-and-off style lends itself as well to pretty summery fabrics as to crisp, cool weather ones. Sizes 14, 16, 18 and 20 years; 34, 36, 38, 40, 42, 44, 46 and 48-inch bust. Size 18 requires  $4\frac{1}{2}$  yards 39-inch material;  $\frac{3}{4}$  yard 35-inch contrast. Price 35 cents.

No. 709—Scallops were never so pretty as on the neckline and defining the pockets of this slender frock. Sizes 14, 16, 18 and 20 years; 34, 36, 38, 40, 42, 44 and 46-inch bust. Size 18 requires  $3\frac{1}{2}$  yards 39-inch material. Price 35 cents

No. 711—An easy-to-make fashion for juniors. With two styles included in the pattern you can make one of a pretty printed rayon crepe; the other in a dark, cool cotton. Sizes 9, 11, 13, 15 and 17 years; 31, 33 and 35-inch bust. Size 13 requires  $4\frac{1}{2}$  yards 35-inch material. Price 35 cents.

No. 710—Pretty-as-a-picture, party dress. Choose a fine cotton in your favorite pastel or, for a quaint look, use floral-sprigged calico. Sizes 9, 11, 13, 15, 17 and 19 years; 31, 33, 35 and 37-inch bust. Size 13 requires  $5\frac{1}{2}$  yards 35-inch material;  $2\frac{1}{4}$  yards edging. Price 35 cents.



709

No. 714—Three-piece playsuit has a halter-neck bra and tailored shorts—with an apron skirt to go over them for more "formal" occasions. Sizes 10, 12, 14, 16, 18 and 20 years; 34, 36 and 38-inch bust. Size 16 requires  $5\frac{1}{2}$  yards 35-inch material. Price 35 cents.

No. 712—Slope shoulders and balloon sleeves are the fashion accents of this little frock with the full, full skirt. Pattern includes a choice of necklines. Sizes 10, 12, 14, 16, 18 and 20 years; 34, 36 and 38-inch bust. Size 16 requires  $4\frac{1}{2}$  yards 35-inch material. Price 35 cents.

Hollywood Spring and Summer Fashion Book — beautifully illustrated, contains almost two hundred styles suitable for every occasion for spring and summer wear. The designs are attractive, up-to-the-minute, yet practical and easy to make. Price 35 cents.

Be sure to state correct size and number of pattern wanted.  
Write name and address clearly.  
Note price of each pattern.

Address orders to The Country Guide Patterns, Winnipeg, Man.

## HOLLYWOOD BILINGUAL PATTERNS



711

710

714

712



## The Trail Ahead

Continued from page 9

Word of the second change that Lee's death brought did not surprise him. At dawn, Barney McCann, the short, completely bald ranch cook rode out with a gallon pot of coffee for the guard.

Handing over a tin cup full, he said, "Clay's taking on Hutch Bonner in Tom's place. Did you know that?"

Lew nodded. "It was an easy guess, Barney. Where did Bonner come from?"

"Don't ask me," McCann scowled, making wrinkles that went almost to the top of his brown bald dome. "This Hutch showed up here a couple of weeks ago . . . looks like an old friendship between him and Clay, or maybe not friendship, either, but something. Anyhow they do their

drinkin' together." He rode on to the other guards.

This news of Hutch Bonner being added to the trail crew was not the thing Lew Rand wanted to know most. In another hour the cook came out again and announced, "You're all wanted at the house. Preacher Caldwell had just come from Clear Fork."

Lew understood what Connie had planned; to be married here where she had been born, in the place where she had spent the happiest days of her life. The pain of uprooting from this home would be, for her anyway, soothed by the adventure and joy of leaving it as a bride.

The Reverend Caldwell had come out from town in a one-horse rig and he was waiting at the steps of the long front gallery of the house. Connie and Clay stood with him. He had always seemed, to Lew Rand, more a

war scout than devil fighter, a grim-looking man with fierce black eyes and a wild mane of white hair.

Without greeting, as the men rode in, Caldwell said, "Constance, all right," and started across the yard toward the cottonwood trees on the creek bank.

But it was not for a marriage ceremony.

They buried Tom Lee in this place that he had loved; ground that he had settled and fought for, where he had hoped to spend, peacefully, the rest of his days. Lew Rand was thinking of that. And it was what Caldwell said, speaking before his benediction: "We must not grieve. There is no man who had better right to occupy this ground forever, than Tom Lee. I know if we could ask him, it would be his wish."


Afterwards, Connie walked back to the house with Clay Carr, and

watching them, Lew saw she was white-faced, but brave and fine.

Caldwell stayed in the cottonwoods to direct the building of a stout fence around the grave. And as the morning wore on, it became apparent that this one ceremony was all there would be today. It was what Lew had imagined, as far as Connie was concerned. But there had been an ill-concealed disturbance on Clay Carr's face beneath the genuine grief.

IF a start north was to be made the next morning, as it should be, the business of getting ready had to go on. Lew sent Bob Blade and Joe Wheat back to ride guard on the herd. He stayed in the ranch yard himself, and yet it was another hour before he had a chance to talk with Connie. Even then he waited until Clay was with her.

She came out to the front gallery



A cartoon illustration for Nabob Coffee. On the left, a man in a turban and robe sits cross-legged on a cushion, drinking from a small cup. In the center, a teapot sits on a three-legged stand over a small fire. To the right, a woman in a sari stands and speaks. A large speech bubble from her contains the text: "YOU JUST CAN'T LOSE WHEN YOU SERVE NABOB!". In the bottom right corner, a large box of Nabob Coffee is shown, with the brand name "NABOB" in large letters and "Coffee" in script. A small cartoon character is peeking out from behind the box. The box also says "REGULAR GRIND".

Up to a standard—not down to a price! That's why you get more real coffee enjoyment with Nabob . . . a taste-tantalizing aroma . . . a mellow, rich, satisfying flavor. Nabob quality makes the difference. Ask for Nabob and enjoy coffee at its delicious best.

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## "Old at 40, 50, 60?"

### --Man, You're Crazy

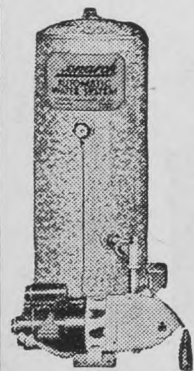
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of the house and sat down on a bench. Clay stood at her side, silent, with a small boy's brooding look.

Lew walked up to them. "Connie," he said, "I'm sorry."

Her eyes lifted to his face. She nodded. "Yes, Lew. I know."

Clay Carr suddenly crushed on his hat, turned his back and stepped down from the porch.

Lew said, "Clay, don't go. I have nothing that you shouldn't hear."

"You have nothing that I should listen to, either!" Clay walked on.

LEW felt a dangerous heat flood through him; he kept his eyes from Connie Lee for a long moment. When he did look down, he saw her hands folded quietly in her lap, and the expression of her mouth was more serene than he had ever known it to be. In the space of one night, with what had happened, the restlessness seemed gone from her. It was as if all of Tom Lee's strong courage had come back into this girl.

He sat down at her side and waited, until, without looking at him she said, "Lew, put yourself in Clay's place. He understands. I can't go through with anything more, right now. He knows that. But still, he's blocked. He had counted on this day so much. It's going to be difficult—he never hides his feelings very well. Try not to feel so much yourself, Lew, against him."

"I'll try, Connie."

Her hand came to his forearm and lay there. "Try hard. Please. For my sake."

"You aren't going up the trail now, are you?" he asked. "We'll start in the morning. You can take a train and meet us at Dodge. That's more than half way, and most of the trouble will be over by that point."

"No." Her dark eyes met his, held them. "I'm going with the herd."

"Connie," he said flatly, "you can't!"

She smiled; and it was good to see her do that. "You forget something, Lew. I never did take your orders." Then her hand pressed his arm. "But that isn't it, either. All of my father's life is represented in that herd. It's part of him. I'll be less lonely riding with it on the trail. And right now, nothing is better for me than a tough piece of work. Don't you see?"

He nodded, admiring this quiet courage of hers, and feeling perhaps she was right. There was one thing he wanted to know:

"Has Clay talked about money?"

"Yes," she said, "he has."

"You told him?"

"No. I only said that after the robbery, Dad managed to make another arrangement. But I think he half suspects and I don't see why he shouldn't know."

Lew shook his head. "No, Connie. I'm not afraid of Clay; it's his friend. I wouldn't trust Hutch Bonner out of sight behind a tree."

He saw Caldwell come from a bunkhouse across the yard and John Quarternight walked from a stable with the preacher's horse. He stood up. "I want to send a letter back to town. Do you know the name of your father's agent in Fort Worth, the one who sold his land scrip?"

"Why, yes. George Hill, Drover's Bank Building. What are you going to do?"

"That stolen money," he said, "some of it, anyway, will be on this trail. The

bank must know the serial numbers. I'm going to find out."

He wrote his letter in the bunkhouse and sent it to town when Caldwell drove away. In it, he asked that a reply be mailed to him at Dodge City, Kansas.

Connie was not on the front gallery when he went back, and then in the work of getting ready for tomorrow's start, he had no chance to talk with



"Let's run away tomorrow. Tonight we're having ice cream!"

her. By nightfall everything had been done. Barney McCann's chuck wagon was loaded, sacks of coffee and flour and boxes of canned food stored away beneath the high bow of its canvas top. Connie's wagon matched it, carrying her most prized possessions; a chest of drawers lashed against the seat, her mother's china packed in a barrel on one side, a pile of quilts and a hide-bottomed chair roped against the other, with her bed made on the floor down the middle.

At dark Clay Carr set the herd guard in the way it would be on the trail. He did not, as usual, let the men draw cards to choose hours. Instead, when they had taken their night meal from McCann's chuck wagon hauled out to the bed-ground, he announced that Lew Rand and John Quarternight would ride first watch, eight to eleven. Eleven to two, the one they hated most, he took for himself and Hutch Bonner. Joe Wheat and Bob Blade would finish out from two until dawn.

That there was some reason for this deliberate set, Lew Rand felt very sure, but for once, Clay Carr's motive was well hidden.

Later, riding and talking with John Quarternight, it was this slow-spoken old man who seemed to have the answer. "Clay," Quarternight said, "don't want you sittin' around the campfire evenings with his girl."

HAVING himself bossed three separate northbound herds, it was hard now for Lew Rand to follow the lead of another, whose experience was limited to one trip four years ago.

Trail routine was established at dawn the next morning. Carr and Hutch Bonner rode ahead to keep the herd pointed. With Joe Wheat and Bob Blade riding swing positions on the left, Lew and John Quarternight on the right, the two thousand head of cattle started to move. In an hour they were strung out in a loose column more than a mile long, grazing forward into the north.

Forty saddle horses in charge of crippled Snowfoot Ryan, ran free out on the plain. Last in the procession came Barney McCann's chuck wagon hauled by two grey mules, and Connie keeping pace with him, small and upright on the seat, managing the restless team of sorrels.

Dropping back to her once after

the start was made, Lew felt once more an immense admiration—she was like a little cavalry trooper. He grinned down from his saddle: "Red River, the Canadian, Dodge City . . . Connie, you're on your way."

He had thought that Clay Carr would close up on the Pitchfork's lead. The cattle were fresh, well fed; they could easily make twenty miles before dark. Yet through the hours the column dragged a slow pace and no orders were given for the swing men to push it along.

By landmarks Lew figured they made less than fifteen miles that first day. Coming in after his eight to eleven guard, he found Connie sitting near a dying campfire, her knees drawn up, arms hugged around them. Beyond her the canvas bed-rolls of sleeping men were like white cocoons against the brown earth.

She looked forlorn and lonely, and stopping at her side, he asked, "Want to talk, Connie?"

She shook her head, slowly, without looking up.

THE next day, and in those that followed, she seemed to want no more than to be left alone. It troubled him. Yet there was little he could do, and he fixed his concern on another thing that was more within his reach. Day by day as the dragging pace continued, it became plain to him that the Circle Dot herd would never reach Dakota by the First of July. While ahead of them the Pitchfork was making good use of the lead. This was flat prairie country; if St. Clair's outfit were anywhere within twenty miles, the rising flag of its dust would have been visible. And it was not. Clay Carr knew the time limit. This slow drive couldn't go on.

It might be, Lew admitted, that Clay was only playing safe, avoiding trouble now. For as long as they kept in the rear they would not run afoul of the Pitchfork crew.

But with a growing impatience he felt that was not the answer. In a week's time the real reason seemed in some strange relationship between Clay and Hutch Bonner. They were never apart; not in the way of friends, but as one keeping close watch of the other. He knew also that they were both drinking, a thing a good foreman never tolerated outside of trail towns. On Clay's part, it looked as if he were deliberately keeping his senses dull. Because of Connie? Perhaps; and Lew saw it was doing its harm. There was little talk between them, and night after night she kept her late, solitary watch beside the chuck wagon fire.

Like that, one week slid into the next; in the third they crossed the Red River. Then as they twisted on through low hills of Indian Territory, even Quarternight and the usually silent Joe Wheat began a grumbling revolt. Lew let time ride, waiting. He had his first clash with Clay Carr on the banks of the Canadian.

A dozen graves near the crossing showed the treacherous way of this river. He had seen it rise within half an hour's time from a wide smooth sheet of water, to a torrent that swept away both cattle and men. But he knew there was even a greater treachery when the Canadian lay as it did now, broad and shallow and muddy.

It was midmorning when the two thousand Circle Dot animals



reached the flat bordering bench. Snowfoot Ryan had rushed the horses across and was grazing them on the north bank.

As the point of cattle came within a quarter mile of the water, Clay Carr and Hutch rode back to the wagons. Carr signalled with his arm and the swing men followed. When they had gathered in a group around him, he said, "All right, give 'em this quarter-mile run. We'll pour these cows across before they know it." He swung to look at Connie on the wagon seat. "We'll get your outfit over afterwards."

LEW had halted on the opposite side of the wagon. He leaned forward in his saddle to speak across past the girl. "You mean all in one bunch, Clay?"

The flush of Carr's round face deepened. "You heard me."

"Then how about testing the bottom first?"

"Look here, Rand." Carr's voice was thick. "I've been waiting for this. It's taken you a long time to start telling me my job, hasn't it? Now you've begun . . ."

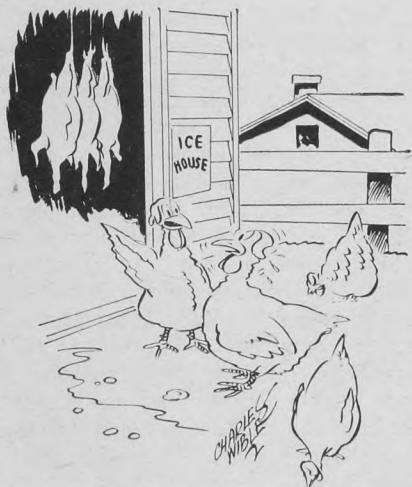
"Clay!" Connie's quick tone cut into his rising anger. "Clay, stop it."

There was pent-up violence, long seeking an outlet, in the sudden thrust of his face toward her. "Am I foreman here? Do I have to explain everything I'm doing?" He jerked his head up. "You aren't blind, are you, Rand? The horses got across, didn't they? What more test do you want!"

Lew shrugged; he could point out that horses were lighter and moved faster. He looked down into Connie's face and saw a desperate pleading there. Any more argument, he knew, would only release further antagonism in Clay Carr. He turned his horse saying, "All right."

"Get going then!" Carr ordered.

The riders spread out, one swing man on either flank, the rest crowding the rear of the herd. The cattle were dry. They had smelled water and needed no urging. In a brown flood they raced across the quarter mile of flat bench.



"And this is the morgue!"

Lew saw the leaders pour down the short bank and into the ford of shallow water. But instantly they sensed the danger beneath their hoofs. Those in front tried to hold back. Behind them the crush of two thousand cattle pressed on, the flood of brown bodies unchecked, until they made a tossing wave over the first animals that were down. Fanning out, they plunged and fought toward the north bank.

It was too late to turn the run now; the greater danger would be if the herd started milling in midstream.

Racing across the rear, Lew pulled his gun and saw Quarternight and the others drawing theirs. With shots fired close, and lashing rope ends, they drove the struggling mass on through the water. He did not look back until a time of bellowing, scrambling turmoil was passed and he knew the main body of the herd was again on land.

Halting then, he saw the muddy water dotted with the hunched bodies of cattle. Some were motionless, some were struggling; all of them held fast in the treacherous quicksand of the Canadian.

Clay Carr and Hutch rode back to where he had stopped, and Carr gave him a sour look.

"I suppose this pleases you, Rand?"

"Not any," Lew said. "I don't like the job we've got on our hands now. We're losing time."

More than half of the thirty-five or forty cattle he saw were already too low in the water to be rescued. They would have to be shot. The rest had a chance. He stripped off his chaps, and with Quarternight and Joe Wheat, took long ropes and waded out into the stream. As long as a man kept moving, or if he lay down, he would not sink.

He stretched himself out alongside the first steer and began to dig the sand away from one foreleg. Quarternight dug at the other. As soon as one leg was free, Joe Wheat tied it up close beneath the animal. They released the hind legs in the same way, and then with a rope run to a saddle horse on the bank, they dragged their bellowing steer ashore.

Clay, Hutch and young Bob Blade were working likewise; but it was slow. It was late afternoon before the last live animals were out of the water.

With Snowfoot Ryan's help, Barney McCann had got both wagons across farther down and had halted behind the grazing herd. That morning, Snowfoot had come across with the horses and had reported signs that the Pitchfork, also, had found trouble in crossing the Canadian. Their dust, he had said then, was less than five miles away.

Thinking of that report, as he stood with the others drying off in front of the cook-fire, Lew said, "Clay, we've lost a lot of time, but we can make it up. We've got three hours of moon tonight. Why not keep on?"

Carr looked at him across the fire, for once without antagonism, and seemed to consider it.

"We're as close to the Pitchfork as we'll ever get," Lew urged. "If we're going to take the lead, it might as well be now."

He saw the sudden lift of Hutch Bonner's dark, heavy head. "We're beddin' down here," Bonner said.

"Clay," Lew asked, "who's the foreman of this outfit?"

"I'll answer that," Bonner cut in. "He's foreman, I'm advising him. I've been over the trail. Anything else you want to know?"

Lew waited, silent; across from him, Clay had turned and was staring down into the fire, his face set, unreadable. One thing came then with dead certainty—Clay Carr was not leading this herd. Hutch Bonner was.

Lew said no more and let the man's question go unanswered.

But that night he took the Circle Dot's future into his own hands.

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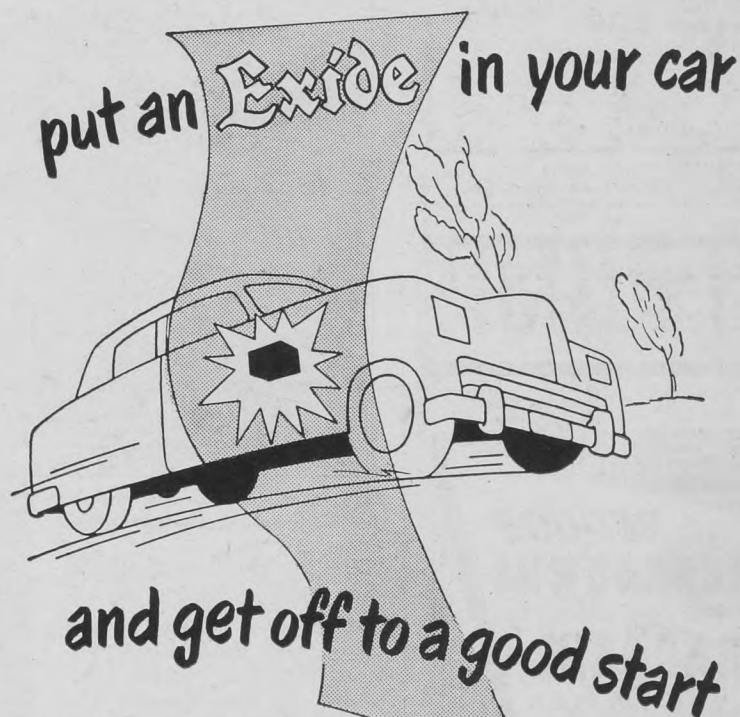
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*Come on stupid. Get in there with the rest.*

## Australian Sheep Dogs

*Because of the extent and economic importance of the sheep industry in the southern continent the art of training working dogs is highly developed*

Photostory by JACK GALLAGHER

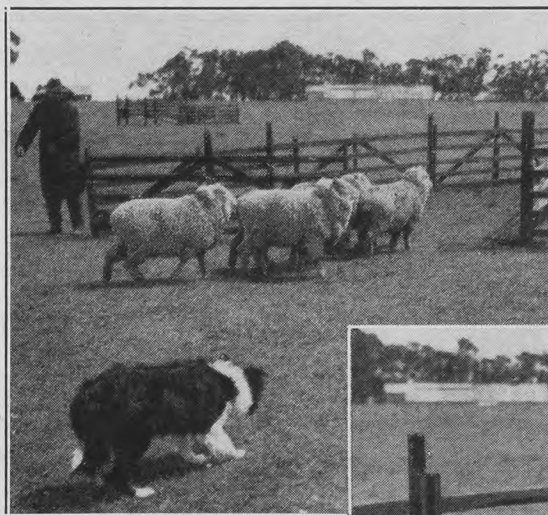
**S**HEEPDOGS play a major part in controlling Australia's great wool industry. Without their dogs, graziers would be hard pressed indeed to manage the 112,000,000 sheep that comprise the country's flocks. Consequently, great care and interest are shown in the breeding, training and general welfare of the dogs.

This is reflected in the popularity of sheepdog trials, an attraction throughout the country wherever sheep are raised. Held sometimes in conjunction

Association, the Cooper Trophy Utility Trial carries probably the highest status in the country. With a prize list of 100 guineas, and the Cooper Trophy, valued at 50 guineas, the honor of holding this trial is given each year to a different club.

This year it was held at Woolsthorpe, a small but rich wool-growing center in the state of Victoria. The Cooper trial extends over three days, the eliminating rounds being held over the first two days, and the final test on the third day.

While no standard "trial" has been evolved for Australian conditions, there is little real difference between any of the various ones. Given reasonable luck with the sheep allotted to it, a dog's success depends mainly on obedience, concentration, coolness, patience—and stamina.



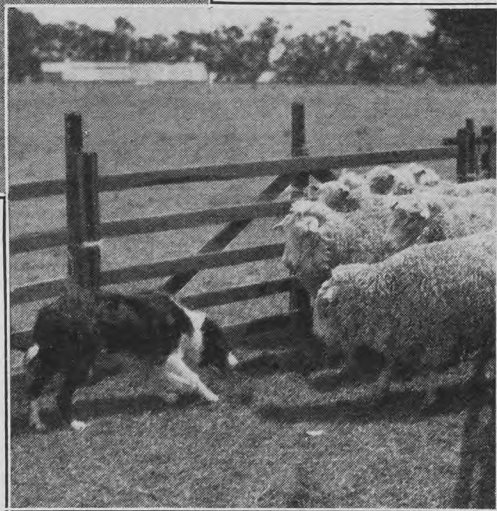
*Into that corral, of course. 3—4—5—6. No tricks now!*

with the local agricultural show, more often as an attraction in its own right, a trial never fails to arouse tense interest among the spectators, as they witness the stern battle of wits between a clever, determined dog, and his quota of stupidly defiant sheep.

The dogs used to work sheep in Australia are Border collies, kelpies, collie-kelpie crosses, and occasionally, an Australian "blue-heeler." The collie seems to have a slight edge in popularity over the other breeds.

Originally coming from Scotland, Border collies have been bred in Australia for many years, but breeders are continually introducing fresh blood into the country's kennels by importations from Scotland.

Of the various trials, all held under the control of the Working Sheep Dog



*Now gentlemen, if you would turn around and go through the gate we could all go home.*

Six sheep are used in the final test for the "Cooper." The dog must "cast" some 600 yards to collect his sheep, and must not cross between judge and sheep while doing so. The sheep must be brought back between two flags 25 yards apart and 75 yards from the handler; then between two more flags beside the handler; back at a left angle through a four-foot gap in a false fence, between two flags 10 yards apart and 50 yards from the ring, round a single flag and into the drafting yard.

The dog must then draft off three marked sheep into a pen and take the others across a bridge into another pen. The handler must then close the gate of the pen and direct his dog to collect the three marked sheep—which will have been released from the drafting pen—and yard them with the other sheep. To complete the trial, the six sheep have then to be loaded over a ramp into a truck for transport.

This year, the Cooper trial was won by a city dog, Kintyre Moy, an Australian-bred Border collie who works with his master, Drover W. J. Clifton, drafting and yarding sheep at Newmarket saleyards.

## Tuberculosis In Crows

**D**URING the past 25 years a great deal of research work has been done by scientists of Canada's Department of Agriculture in studying and combatting the spread of tuberculosis in farm flocks and herds. And now another page has been added to the tuberculosis story by Science Service animal pathologists, who have found that 25 out of 263 crows examined were infected with tuberculosis which under certain conditions might infect the farm poultry flock.

"So far the crows examined have come from western Ontario," said Dr. Chas. A. Mitchell, Dominion Animal Pathologist and co-author with Dr. R. C. Duthie, in a recent issue of the Canadian Journal of Comparative Medicine and Veterinary Science dealing with this subject. He said that it has not yet been determined if crows in other parts of Canada are also subject to tuberculosis, but hoped that research workers in other areas would report on the extent that this disease is being carried by the common crow.

Tuberculosis usually produces an emaciated or rundown condition in its victims, but strangely enough the crows examined did not show any evidence of these symptoms. The autopsy findings on the infected crows showed only slight lesions in 16, with nine showing more extensive lesions. These were generally confined to the specific organ attacked, with no marked tendency to generalize, which Dr. Mitchell considered perhaps explains the absence of emaciation. Lesions were found most commonly in the liver, in the spleen and less frequently in the lungs.

In all, seven different strains of tubercle bacilli were isolated and Dr. Mitchell said that it was of interest to note that these did not conform to the pattern of the tuberculosis organism usually found in fowls. The pathogenicity, or extent of infection of the organisms contained in lesions taken from infected crows and inoculated into chickens, rabbits, and guinea pigs, gave varying results.—From The Port Elgin Times.

## An Omission

Our attention has been called to a regrettable omission in our February issue. In an article on rapeseed oil, the author indicated that if this crop should assume economic importance in western Canada there were several linseed oil mills, which he mentioned by name, in which the seed could be crushed. Unfortunately the very efficient mill of the Alberta Linseed Oil Mill at Medicine Hat which should have been included was inadvertently left out.



## Seed Growers at Fredericton

The members of the Canadian Seed Growers' Association in their annual meeting again concerned themselves with maintaining and raising the high quality of seed in Canada



Some of the Robertson Associates; left to right: T. J. Harrison, Winnipeg; A. Burgess, Beaverlodge, Alta.; R. H. Cottingham, Petersfield, Manitoba; J. Farquharson, Zealandia, Sask., and A. M. Stewart, Ailsa Craig, Ontario.

FOR nearly half a century Canadian seed growers have been perfecting one of the most useful and unique organizations to be found anywhere in agriculture. This organization is the C.S.G.A., or The Canadian Seed Growers' Association, which last month held its 47th annual meeting in Fredericton, New Brunswick.

Representing all Canadian provinces and with branches and members from coast to coast, the Association, with its 4,000 grower members, (about three-quarters of whom are in the Prairie Provinces), stands watchful guard over the purity of Canadian seed stocks—grain, forage, root, vegetable and flower seeds. When the plant breeder originates a new variety, the C.S.G.A. obtains the pure seed from the plant breeder and establishes it as "Foundation" seed. This seed it distributes to very carefully selected, experienced members, and as long as it remains in their hands and is kept at the high standard of purity demanded by the Association, it is known as "Elite" seed. When it has been multiplied and the elite-seed grower has a surplus for sale, he must sell it as "First Generation Registered" seed. The next generation of seed then becomes "Second Generation Registered," and so on.

All foundation, elite or registered seed is carefully field inspected and must pass rigid tests. It must be bagged and sealed, if sold as "registered" or better. The Association keeps records of all such seed produced and sold. The closest co-operation exists between it and the seed inspection service of the Federal Government, the universities and experimental stations and the provincial departments of agriculture. No other country more jealously guards the quality of its seed stocks than does Canada through this unique co-operation under grower control.

AN annual meeting of the C.S.G.A. is largely concerned with protecting this purity and still further perfecting control methods; also with plans and discussion among the growers present of methods of maintaining clean and pure seed stocks on their farms. An experienced grower long associated with the C.S.G.A. is sometimes named a "Robertson Associate," a cherished award, created in honor of the late Dr. J. W. Robertson,

founder of the Association. Only 77 such awards have been made so far since the first one quite a few years ago.

The meeting this year was confronted with one or two problems of a rather complicated and technical nature. They are associated on the one hand with purity standards, and on the other, with the method of distributing foundation and elite stocks. The directors have been instructed to discuss these problems with the plant breeders and themselves to work out methods of tightening up certain loose threads in the control of purity.

As many as 308 varieties of all crops were grown in 1949, by 4,018 members who were granted certificates. This seed was grown on 306,807 acres. In addition, 118,267 pounds of vegetable and tobacco seed was produced. Membership dropped by 30 per cent from 1948, with the severe curtailment of export seed sales. A 53-minute film "A Sower Went Forth," was produced during the year. Other encouraging activities were reported to the annual meeting.

Howard P. Wright, Calgary, Alberta, president of the C.S.G.A. for the last three years, is succeeded by W. H. Baumbrough, Vernon, B.C. The Association will meet in June, 1951, at Saskatoon.—H.S.F.

### Walking Tractor

A YORKSHIRE man, H. G. Illingsworth, has come up with a tractor which neither rolls along on wheels, nor crawls caterpillar fashion, but walks. The machine is not yet in production, but patents have been applied for and demonstrations have been made with electrically-driven models.

Tractor wheels are replaced by a set of revolving plates on which treads of large surface area pivot freely. Treads are of rubber or metal and are grooved or studded to obtain maximum grip. Any individual tread rotates as the plates rotate, until it is exactly parallel to the ground, at which moment it immediately takes the weight of the tractor on its full bearing area. The tread is said to remain fully in contact with the ground until the next tread is also firmly planted. In this way the machine "walks" over the land in the same way that a man plants his foot flat down to secure maximum bearing surface when he walks on soft ground.

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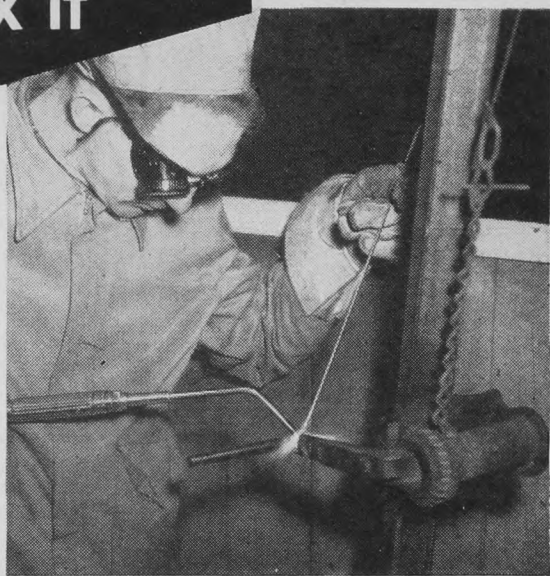
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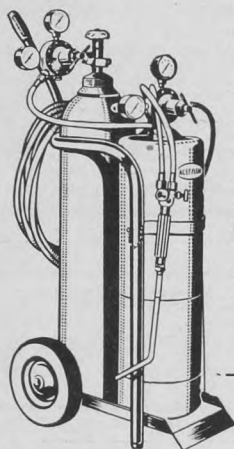
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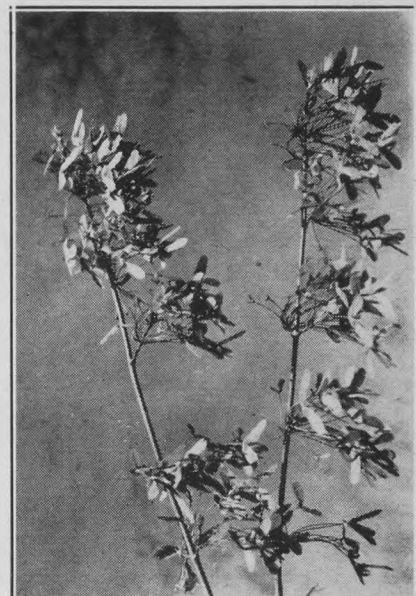
## Seeds That Go With the Wind

Even a light breeze will transport the seeds of many plants

by PAUL HADLEY

"WHERE do all these weeds come from?" This wail is uttered millions of times each season by those persons who must wage an unending fight against these wild plants in garden or field with hoe and cultivator. No matter how rigorously the weeds are kept down; no matter if not a single one is allowed to grow up or to produce seed, the next season will see an abundant crop of weed seedlings springing up.

The wind is the source of all this trouble. In the Creator's scheme of things, several methods of seed dissemination are produced in the effort to cloak the face of the earth with a solid mass of greenery. Many weeds scatter their seeds haphazard around them as their seed heads pop open; others with pronged or barbed seeds stick to clothing or to the hair of animals. But by far the most weeds (trees and cultivated plants, too) depend upon the wind to carry their seeds wide and far. Such weeds are usually the most widely scattered of all, for their seeds will often travel for miles before settling upon fertile ground!



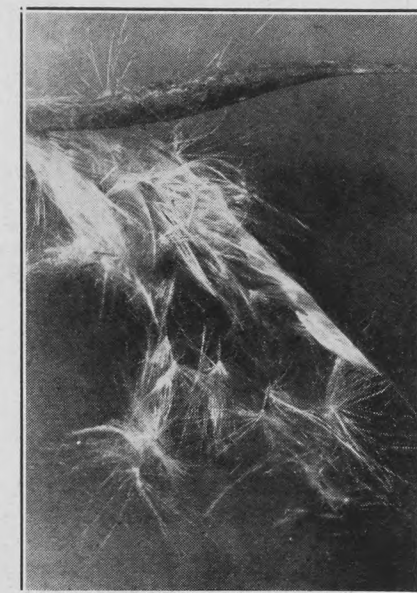
Seeds of the maple which fly on gossamer wings.

is sufficient to dislodge one of these seeds from its opened pod and send it on its way. There are many milkweed species, all having feathery seeds.

The dandelion and its kin are also famous air travellers. Their seeds are borne in great numbers, and each is equipped with a parachute of tiny hairs spreading out at the end of a single filament which is attached to the seed. This arrangement not only serves to carry the seed afar, but being attached to one end, makes sure that in settling to the ground that the end of the seed which contains the germ settles first upon the ground, where it will be in contact with the moist soil.

There are many troublesome weeds which belong to the dandelion family, and which can be recognized by their seeds as belonging to the same family. The wild lettuce, the hawkweeds, the thistles, the so-called "sow-thistle," which is really a lettuce, the chicory, and the cultivated garden lettuce all belong to the same family.

Most grasses also depend upon the wind for seed dissemination. One of the most troublesome grasses in North America is the broom sedge. This covers vast areas from Canada to the Gulf of Mexico, from the Atlantic to the Mississippi river, and many abandoned fields are planted with its wind-transported seeds.



These fine bundles of down are sown on the wind by the milkweed plant.

There are two main types of "wings" which are used by seeds that ride the wind. There are the winged seeds, mostly those of trees such as the elm, the ash, the maples, and others, whose seeds are equipped with membranous wings of tissue. Such seeds, while able to travel for some distance from the parent tree under propulsion of a strong wind, cannot travel for miles. Other trees use downy parachutes on their seeds—silky hairs that catch the slightest breeze, and may go for many miles. The willows, the cottonwoods, and a few other trees are among this latter type.

Most of the weeds which give us so much trouble send their seeds to us by air on these silken parachutes. Any day in late summer when there is a fair wind blowing, one may see many seeds in the air. The milkweeds are probably the champion air travellers of the plant world, for their seeds, while quite small in size, are equipped with silken parachutes that are prodigious in size as compared to the size of the seed. Even a little puff of wind



The hawkweed like the dandelion and sow thistles releases silky parachutes.



# The Country Boy and Girl

## Red Cabbage And Willie

by MARY E. GRANNAN

WILLIE was a little rabbit, who lived with his grandmother, in a hutch in the deep forest. Willie was a nice little rabbit and kind to everyone. But Willie had one fault. He forgot to remember the things his grandmother told him.

"Willie," the old rabbit would say, "remember this—never go beyond the line fence at the edge of the woodland. There is danger beyond that line fence."

"What sort of danger, Grandmother?" Willie would ask.

"All sorts of danger for rabbits. Now promise me that you will not go out of the forest."

Willie promised, and he meant to keep his promise. But one day when he was hopping over brake and fern, he smelled the delicious odor of cabbage. He looked around and about him. There was no cabbage near him. He knew then that the wind was carrying the cabbage perfume to him, and that the cabbage must be growing in the clearing beyond. Without thinking Willie hopped over the line fence and into the cabbage patch. He looked at the cabbages in wonder. They were red. He'd never seen red cabbages before. He nibbled a leaf.

"Yum, yum," he said. "This is good. I'll take one of these to Grandmother." He cut a large cabbage from its stock, and set off for home.

His grandmother paled when she saw him coming. "Willie," she said, "you've broken your promise. You've been into someone's garden."

Willie flushed. "I . . . I . . . I forgot, Grandmother. The cabbage smelled so good, that I forgot. It is lovely cabbage, Grandmother. Taste it."

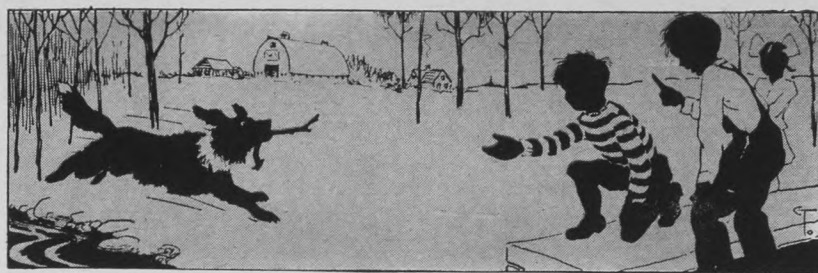
"I know it is good," said Grandmother Rabbit, "but it is not good enough to risk your life for. Willie, if the farmer who owned those cabbages had seen you, it would have been the last of you. Now you are not to forget again."

"Yes ma'am . . . I mean no, ma'am." Willie meant it too, but the next day when he was out hopping, he thought of the red cabbage. It was raining that day, and he said to himself, "I could go and get one. It's raining so hard the farmer would not be in his garden today. I'll just go and have a little lunch. Grandmother needn't know about it."

He went to the garden. But instead of a little lunch he had a big lunch and he was so full, he could scarcely move. He felt so good that he forgot to look out for danger. And danger was very near Willie at that moment. The farmer who owned the garden had gone out in the rain to tie up his scarlet runners, and he saw Willie's white coat in among the red cabbages.

"Ha!" he said, "so here is the thief who cut my fine red cabbage from the stock yesterday. I'll slip a noose of this cord around you, my fine fellow, and take you to market and sell you."

Willie saw the farmer then, and tried to hop out of reach, but he



SO you are going to have a new pup for your very own! I wonder what kind of a dog he will be? Well, that depends on you and the people on your farm, for your dog will also have to take orders from other members of your family. Even as a small pup he must learn obedience—at least two commands, to "come" and to "go." The tone of your voice will help him and your movements—an outstretched arm when you want him to "go" and a patting of your knee when you wish him to "come." A very bad habit that some dogs get is the desire to run on to the highway to bark at cars. This is a bad habit for any dog and one which may well mean an accident for a car driver and might even lame your dog or end his life. Begin at once to train your dog not to chase cars on the road. You may have to scold or even beat him a few times and that may be all the lesson he needs. If he continues in this habit try tying him on a short rope within sight of the highway. When he rushes off to bark at a car the rope will throw him over and after a few tries he will likely learn his lesson.

A dog can be a help or a nuisance when you are rounding up the cattle. Perhaps the first few times you go out for the cattle you could take him on a leash so that he sees what work is to be done. Later let him, under your orders, round up the cattle and slowly drive them home.

Your dog should be fed a good meal of meat and table scraps once a day. Give him this meal at night and be sure there is a good supply of clean drinking water ready for him at all times.

Have you heard of the Seeing Eye dogs which are used by blind people to guide them even in heavy traffic in the city? These dogs are generally of the Alsatian breed, but whether your dog is pedigreed or just an ordinary dog, he can learn to be useful and helpful to his owner.

*Ann Sankey*

## Are You A Regular Guy?

NOBODY wants to be called a "toad in the puddle." It is the ambition of all of us to be well liked, to be popular, to be one of the gang, and to be considered a "regular guy" around town. We like to be dubbed a "good sport" and to feel we can fit into any situation and so win a lot of friends.

But you're not going to be very popular if you have to stand back repeatedly and mutter, "Oh, I've tried my hand at that," or "Sorry, folks, you'll have to count me out!"

Here is a test that will give you an idea of your present standing as a "regular guy" . . . a person who can get in step with almost anybody's pet pastime, and enjoy it.

Check the following accomplishment chart. In Section A mark as follows: if you find you have never once tried your hand at an item, score zero; if you have attempted it at least once but never made much progress at it, score 1; if you feel you are quite average, score 2; and if you are sure you are better than average for your age, score 3.

In Section B allow one point for every question to which you can answer "yes." Come on now, let's be a "regular guy" and score honestly.

### A—Activities

**Outdoor Athletics (boys):** Swimming —, skating —, cycling —, horseback riding —, tennis —, baseball —, football —, racing (official contest) —.

**Outdoor Athletics (girls):** Swimming —, skating —, cycling —, horseback riding —, tennis —, softball —, racing —, diving —.

**Indoor Activities:** Basketball —, volleyball —, badminton —, bowling —.

**House Games:** Bridge —, checkers —, chess —, darts —.

**Artistic Accomplishments:** Contribution to school paper or any published magazine —, amateur play acting —, art work other than at school —, singing —, playing a musical instrument —, debating —.

**Social Activities:** Dancing —, entertaining at home —, school committee work —, clubs —.

### B—Broadening Experiences

**Have You Ever:** Travelled over 500 miles from home? —, travelled 100 miles alone? —, paddled a canoe? —, had a ride on a commercial steamer? —, travelled by air? —, been on a fishing trip? —, camped out overnight? —, seen a grand opera? —, visited a zoo? —, attended a symphony concert? —, seen an art gallery? —, done gardening? —, prepared a meal entirely alone? —, built a model airplane or knit a sweater? —, typed a letter? —, followed up a hobby for over a year? —, read each copy of a favorite magazine for at least one year? —, read the New Testament right through? —, seen a championship sports tournament? —, seen a circus? —, sold anything? —, been leader of a sports or social group? —, handled funds for other people or an organization? —, been elected leader of a group? —.

Obviously one cannot be proficient at all branches of sport, nor see the whole world in a few years, but it is equally obvious that if you try, like Ulysses, to become "a part of all that you have met" you will be preparing yourself to fit in wherever you are needed most.

Now check your total score. The possible of 90 is impossible. In fact, you are definitely out in the lead if you can score 75 or higher. A score between 60 and 74 indicates you are an entertaining and useful friend. A 50 score is very satisfactory, and even 40 will give you a bare pass.

Remember, though, quizzing for the sake of finding out where you stand, may be fun; but testing yourself with the idea of discovering your weak points so you can broaden your accomplishments is making a real "regular guy" out of yourself.—Walter King.





# THE *Country* GUIDE

with which is incorporated

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VOL. LXIX WINNIPEG, JULY, 1950 No. 7

## Russia Advances A Pawn

The eyes of the world are turned to Korea, where on Sunday, June 25, like a bolt from the blue, Communist-trained armies from the north descended on their own countrymen living under democratic rule in the southern part of that peninsula. As this issue of *The Guide* goes to press, the invaders appear to have made rapid advances, and may overrun the retreating armies of the south in a matter of a few days.

Secretary Acheson has properly styled the attack as a piece of cynical, unprovoked aggression. The Security Council by unanimous vote, the two Communist members abstaining, has called on the attackers to cease fighting and withdraw to their own territory, but nobody believes that long-planned and naked aggression will be deterred by anything short of force. Neither is it likely that adequate force will be forthcoming in time. It is difficult to believe that anything can save the government of Syngman Rhee from the fate which befell Hitler's neighbors immediately before the World War, and Stalin's neighbors after it.

The course which the American government will pursue is still hidden from us. There is little doubt but what the Russians are using this opportunity to test weapons and tactics against American-trained troops in much the same way as Hitler and Mussolini used the Spanish Civil War as a proving ground for the evil purposes they were then fashioning. Active participation of American forces may bring them into headlong collision with Russian troops. Even if it did not, it might precipitate a general conflagration. There are good military reasons why the police forces of the United Nations should hesitate to become involved in a large-scale continental operations so far from their principal bases. On the other hand, if the armies of Southern Korea are permitted to go down unsupported, the cause of freedom will suffer a serious loss of prestige throughout southeastern Asia, already shaken by political eruptions. It is a dreadful choice to be forced to make.

In the fearsome days of waiting that lie ahead, Canadians may take some consolation from the fact that their country is united as never before. If the Russians are determined to make Korea today a rehearsal for Germany tomorrow, at some stage in this march of aggression the challenge will have to be met. Hon. L. B. Pearson has left no doubt what the response will be. No sober person doubts what the price will be, but the Canadian people will not flinch.

## Unfortunate Outburst

Hon. J. G. Gardiner's speech of June 12, which was heralded by the daily press as a threat to "get tough with Britain," will make him more enemies than friends. This country remembers the fate that lay in wait for another politician who planned to blast his way into the markets of the world. But to do Mr. Gardiner justice, his task in promoting the sale of Canadian farm products is not an easy one just now, there has been much to try his patience, and the speech does not read so badly in Hansard (page 3531) as the reporters made it sound.

Nevertheless, if Mr. Gardiner, or anyone else, believes that Canada, or any other supplier of agricultural commodities, can negotiate a contract dictated partly by trading acumen, and partly by sentimental regard for what has occurred in the past, he is simply deluding himself. In Britain's present position her traders are bound to buy in the cheapest markets and sell in the dearest. They have never pretended a wish to do otherwise. Their

strict adherence to business motives is well illustrated by a recent interchange between officials in her own West Indian colonies and departmental chiefs in the home government. Had this been before Mr. Gardiner, it is doubtful if he would have shown his aggravation so publicly.

The West Indians asked for a guaranteed quota for sugar in the British market which the Food Ministry considered too large, at a price which the buyers considered too high. When the deal was finally refused, the West Indians took the line that the terms they offered were the lowest they could go without a severe loss to their industry, which the British government had some moral obligation to assist in supporting, because of their long-time trade and political relationships.

The polite, but unmistakably clear answer from London was, in effect, that purchasing at higher than competitive prices falls upon the British taxpayer, who can not logically be asked to salvage business enterprise elsewhere which at no time makes any contribution to those taxes. The answer which a British minister would give to the representative of an equal partner in the Commonwealth might be less blunt, but it would rest on the same logic.

In some commodities Canada has priced herself right out of the British market. Britain is buying eggs, for instance, from Denmark for eight cents below our floor price, besides which she is paying sterling and not dollars. Mr. Gardiner may choose to "stop talking nicely" to the people concerned, but our guess is that they will continue to pocket the eight-cent difference and get along perforce without his charm.

If there is any lingering feeling in this country that the British people owe a debt of gratitude to Canada for coming to her aid during the war, it ought to be relegated to the nursery quickly. Canada did not rush to support the Mother Country in 1939 because she expected business favors at a later date. We were more clear-eyed about it at the time amid all the distractions of war. We knew that the fate of the free world hung upon the outcome of the conflict. Men were asked to bear arms, and citizens to contribute their savings so that tyranny which threatened to enslave them might be overthrown. Whatever admiration we may have had for Britain's lone stand in the early stages of the war, we said then that her cause was inescapably ours. We should have the wits to remember that acknowledgement now. False claims of gratitude will not further mutually satisfactory trade agreements. They will only breed ill feeling on both sides of the Atlantic and delay the resumption of happy trade relations.

## Any More Elbow Room?

This publication has never hesitated to cross swords with the wild men who talk about a tremendously increased immigration program for this country. It has always contended that an uncontrolled movement of foreign-born into an underpopulated land like Canada would dislocate employment, promote the outward movement of Canadian-born, and bring heartbreak and disillusionment to the newcomers brought here in excess of those who can be readily absorbed.

There is, however, an emergent situation existing in western Europe, particularly in Germany and Italy, which may require some reappraisal of Canada's absorptive capacity for workers, and as liberal an increase of immigration as safety will allow. Unemployment for the two ex-enemy countries named now stands at 7.7 and 9.4 per cent of their respective labor forces.

In western Germany the difficult problem of postwar rehabilitation has been immensely complicated by the influx of twelve million refugees fleeing from Communist dominated lands. They are still coming in a steady stream. In Italy, unemployment is a chronic malady, predating the war. Her problem is that of a population which is increasing faster than it can be assimilated, in a country whose old migratory outlets have been closed.

Unemployment in these two central European countries is disturbing for two main reasons. First,

it is increasing, and is bound to get worse under the most favorable circumstances that can be foreseen. Second, these two countries are critical areas in the efforts of western democracy to halt the spread of Communism. It was unemployment, and the distress arising from it, which gave Hitler the opportunity to overthrow the Weimar republic, which the old Allies thought would usher in a new day for Germany. It was the pressure of unemployment which gave Mussolini inflated notions about a colonial empire for Italy, including the highlands of Ethiopia. The western Allies simply cannot afford to allow unrest arising out of the present state of unemployment to defeat their efforts to align the two most populous nations of central Europe with the Atlantic community.

Up to the present time the International Refugee Organization, IRO, an agent of the U.N., has supervised the movement of displaced persons out of central Europe. This organization is scheduled to fold up at the end of March, 1951. The D.P.'s who are left behind after the discontinuance of IRO will find life hard. One out of every seven in western Germany is a D.P. The arrogance of pride, hatred and intolerance fanned so long by the Nazis is by no means dead. Already the German newspapers are beating the drums against the interlopers, and discrimination against them by courts and minor officials has become a serious problem. In the language of IRO's director, J. Donald Kingsley, the refugee problem has become an expanding time bomb which may set off all the others.

The situation calls for an extension of the life of IRO beyond the date originally set. Along with this, the democratic nations, some of which have already behaved with magnificent generosity in this respect, must come to a fuller realization of the inflammatory nature of this problem, and stretch their absorptive capacity to the limit.

## The Tie That Really Binds

The reorganization which the Manitoba Federation of Agriculture effected at its annual convention in Brandon on June 20, brings into focus a difficulty which most farm organizations have experienced at one time or another.

It is generally agreed that farm groups are strong in proportion to the roots they strike in the ground. The nourishment they draw from one another does not provide the fighting strength which comes directly from the people who live on the land. When a province is blanketed with vigorous locals, whose members take an informed and lively interest in current affairs, and shape their opinions into constructive policies, they command attention and respect. When enthusiasm among their own members wanes there is a tendency to lean on the co-operative trading companies. It is right and proper for the closest and most cordial relations to exist between them, but the road to dependence runs down hill.

The trading organizations have been generous contributors to the provincial educational bodies but they cannot provide the heart beat by which the strength of those bodies is measured. The co-operatives are not unwilling to continue financial aid, but it is undoubtedly true that they would prefer to see their complementary organizations develop a strong, independent following of their own, elaborating farm viewpoints, and initiating policies which should not be allowed to divert the energies of legitimate business institutions. A provincial educational body tied to the tail board of a co-operative trading company must follow well-worn ruts. An independent body, conscious of its own strength can range farther afield, tackling any threat to rural interests. Jointly they should form the advance guard and flank guards of farm progress.

Admittedly the changes adopted at Brandon do not tend in this direction, but in defense of the action taken, it may be said that these are difficult times in which to awaken interest in provincial organizations. When a man can take three steers to the stockyards and go home with a thousand dollars, as a Manitoba farmer recently did, he is not likely to give his time and energy to combat abuses which look trivial by comparison. It is an unfavorable season for setting the prairie on fire.



## Flowers All Year

*The making of flowers from bits of paper started as a pleasant hobby, but has grown into a profitable business*

by MARY ELIZABETH LEMKE

LUSCIOUS orchids, dainty rose buds, delicate apple blossoms; colorful flowers of almost every description are contained in the tiny workshop of an Alberta housewife, and they're all hand made. The hobbyist who creates these lifelike images is Mrs. L. O'Ball of Edmonton and it was to relieve the tedium of a convalescence that she first took up the hobby of making paper flowers.

She started with roses, sweet peas and carnations—designs which many of us have tried with success. It was only when friends began buying her attractive blooms that she decided to experiment with new designs and make her hobby into a business. As models for new designs she used illustrations in seed catalogues and real blooms from her own garden, and as time went on she developed more than seventy-five varieties of artificial flowers. Included in these are apple blossoms, orchids, tiger lilies, lilacs, many kinds of daisies, to mention only a few. To perfect these new designs required much time and paper and patience, but the reward of her untiring efforts came in new and increased business. She began receiving orders from flower shops, stores and funeral homes. Realizing she had indeed gone into business she converted a garage at the back of her home into a workshop. In this small shop, assisted by her mother, Mrs. O'Ball works long hours and the place resembles a little fairyland with its tables and walls alive with color.

She gets many requests for corsages and special sprays to decorate halls and store windows. Her blooms are also purchased for decorations at weddings and other occasions.

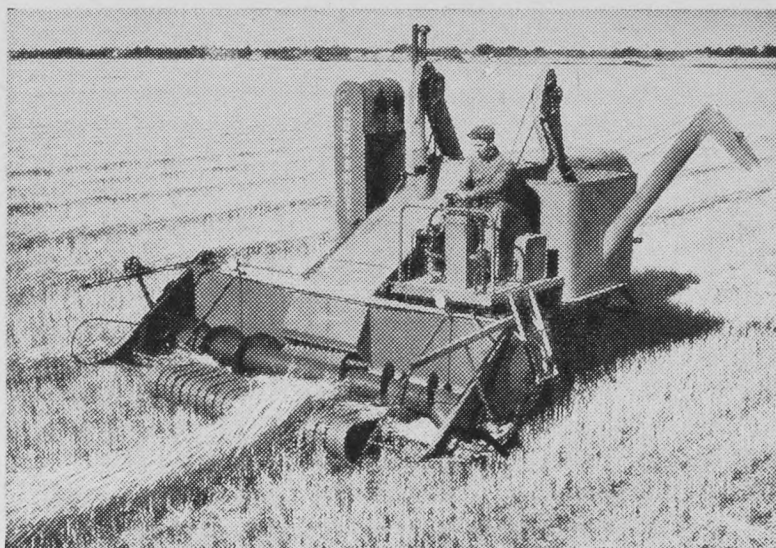
As well as creating many different designs in flowers Mrs. O'Ball has experimented with various materials. Wood fibre, chenille, crepe backed velvet, velour, taffeta, tinted crepes and silks are among the materials she now uses in her work as well as some fabrics entirely original which she says are "trade secrets."

And just for a change from making flowers this artistic lady also makes (and these two are quite original) black velvet cushions with embossed red roses, and buds with sprays of velvet green leaves. These are indeed a work of art and sell readily.

Mrs. O'Ball says people often ask if she does not find it very tedious and nerve racking to sit for hours at a time making flowers. Her reply to this is that she finds the work so enjoyable and interesting that it is very kind to the nerves. They are always striving, she said, to learn new things and to improve on what they already know.

This artistic woman has found satisfying self-expression through a hobby and has by her own perseverance and patience developed it into a profitable enterprise. It is a business, but in the pleasure that the artist gains from it, it is as much a hobby as it ever was. Work and pleasure combine to a fine degree.

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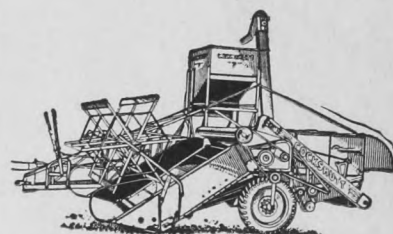
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Corner



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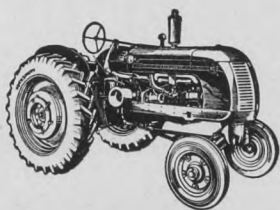


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